



## BNVG/SBNS guide for the neurosurgical management of neurovascular conditions during the COVID-19 pandemic

This is a guide how the management of neurovascular conditions may be rationalised during periods of extreme critical care pressures to essential services only.

### Subarachnoid Haemorrhage

Perform CTA prior to transfer (rather than after transfer to neurosurgery).

Where no aneurysm is found and the patient has:

- Perimesencephalic SAH: confirm perimesencephalic pattern and negative CTA with consultant neuroradiologist. Do not transfer patient or perform DSA.
- Non-perimesencephalic SAH: Confirm good CTA quality. If inadequate, then repeat. Confirm no aneurysm seen and CTA adequate with consultant neuroradiologist. If any concerns raised transfer for DSA. Otherwise repeat CTA at 1 week locally would be considered reasonable.

Where an aneurysm is found:

- WFNS 1-3 The indication for transfer and treatment should remain similar to that currently provided.
- WFNS 4-5 Selected poor grade patients will continue to benefit from neurosurgical treatment following local policy. However, during the COVID 19 pandemic, some with poor prognostic factors (e.g. elderly patients or those with significant comorbidities) are more likely to be managed conservatively in their local hospital.
- Aneurysmal clot: this will remain at the treating surgeon's discretion. It is likely that a higher threshold for treatment will need to be applied than usual.

### Intracerebral haemorrhage with suspicion of Arteriovenous Malformations

With ICH causing mass effect should undergo transfer and emergency surgery

With ICH but no mass effect should have CTA/MRA in their local hospital

- If CTA/MRA shows obvious bleeding point from an aneurysm/varix that is amenable to endovascular treatment or surgery, transfer for treatment.
- If CTA/MRA does not show an obvious bleeding point, manage locally and investigate at a later date.

### Dural AV Fistulas

Ruptured or symptomatic from cortical venous reflux: Urgent treatment as normal

Spinal fistula: Treat cases with rapid neurological deterioration. Defer the majority of cases with more gradual neurological deterioration

### Elective Vascular Surgery

Aneurysms All treatment of unruptured aneurysms will be postponed including giant aneurysm. The only exception would be patients presenting with new third nerve palsies.

AVMs all treatment deferred

dAVFs all treatment deferred

31 March 2020