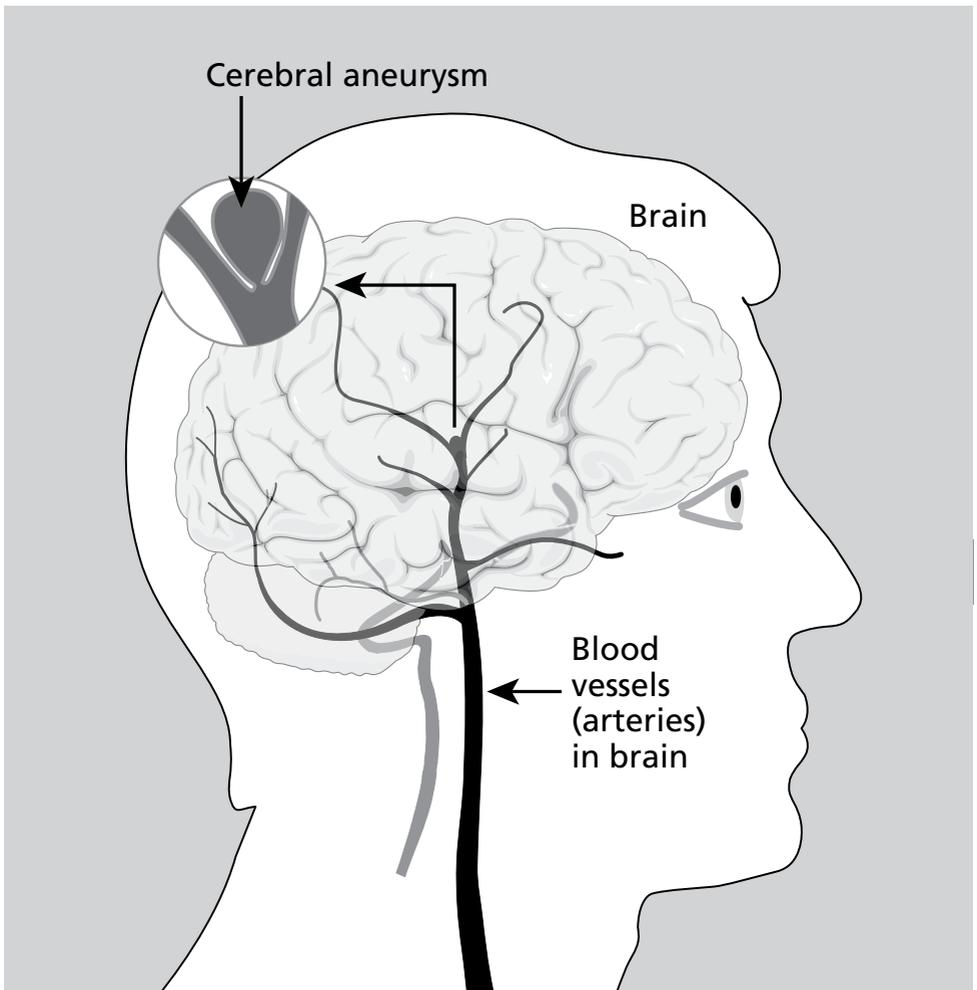


Subarachnoid Haemorrhage (SAH)

A guide for you and your family
about your stay in hospital



What is a subarachnoid haemorrhage?

A subarachnoid haemorrhage (SAH) is a type of stroke caused by bleeding in and around the brain. The majority of bleeds are due to a cerebral aneurysm. Other causes can be from an arteriovenous malformation (AVM). This is a tangle of blood vessels that can become weakened and cause an SAH.

A cerebral aneurysm is a weak area in the wall of a brain artery (blood vessel in your brain). The pressure of the blood flow within the artery causes the weakened wall to swell outwards. The pressure may cause the aneurysm to rupture (tear open) and allow blood to escape into the fluid surrounding the brain (cerebrospinal fluid).

Most aneurysms are very small and don't usually produce any symptoms. However, you may have experienced the following:

- sudden severe headache – people usually describe it as the worst headache they have ever had.
- nausea/vomiting
- sensitivity to light (photophobia)
- neck stiffness
- speech disturbances, slurring words
- disturbances in vision
- weakness in an arm or leg.

In more severe cases, an aneurysm may cause you to collapse and lose consciousness or even have a seizure (fit).

Risk factors

The three most effective steps you can take to reduce your risk of having a further subarachnoid haemorrhage are:

- **STOP** smoking
- **CHECK** your blood pressure
- **MODERATE** your consumption of alcohol.

Tests you may have in hospital

Lumbar puncture

This is a medical procedure where spinal fluid is taken from inside your lower back for testing. This is usually carried out under a local anaesthetic.

Computerised tomography (CT) scan

This is a type of scan which uses X-rays and a computer to create detailed images of the inside of your body.

Cerebral angiography

This is a type of X-ray used to examine cerebral blood vessels (blood vessels in your brain). The images created during angiography are called angiograms. Blood vessels don't show up clearly on ordinary X-rays, so a special dye is injected via the groin (where there is a large blood vessel leading to your brain) to show up the area being examined. The dye highlights the cerebral blood vessels and will show up any aneurysms. This injection is usually carried out under a local anaesthetic.

Magnetic Resonance Imaging (MRI)

This is a type of scan which uses strong magnetic fields to produce detailed images of the inside of your body. If you have a pacemaker or other metal implants you may not be able to have an MRI. This will be discussed with you before any scan. If you suffer from claustrophobia, you may not be comfortable having this test done. Please speak to a member of your team to discuss this further.

You have been admitted to this regional centre in Oxford as you have had an SAH. Your care will now be taken over by the Neurosciences team.

What is the treatment?

Endovascular Embolisation (coiling)

Coiling is the most common treatment for an SAH. During endovascular coiling, a long, thin tube called a catheter is passed through the groin, up into the artery containing the aneurysm. The coils are made of platinum and are flexible, so they can bend to the shape of aneurysm. They are about the width of two human hairs.

The coil fills the aneurysm and over time causes a clot to form inside the aneurysm. The clot then fills the aneurysm sack along with the coil itself. This prevents the aneurysm from rupturing. You will require further scans to ensure the aneurysm remains secure.

Operative treatment (clipping)

Not all aneurysms can be treated with coiling. You may still need open surgery, where a titanium clip is used to cut off blood flow into the aneurysm.

In some circumstances, it may be best to have no treatment at all. This is called conservative treatment. This is where the risk of treatment may outweigh the benefits of having anything done. We will discuss this with you, if we feel that this is the best course of action.

Non-aneurysmal SAH

Sometimes no cause for the bleeding can be found. The symptoms of this are very similar to those of an aneurysmal SAH (caused by an aneurysm), but complications are rare and no treatment is required. If you have had a non-aneurysmal SAH we will still need you to stay in hospital to have some tests done.

Complications following an SAH

Hydrocephalus

This is a build-up of the cerebro-spinal fluid (CSF), which surrounds the brain and spinal cord. The build-up occurs because the CSF cannot drain away. An operation can be carried out to drain the fluid away from the brain.

Vasospasm

Vasospasm narrows some arteries and reduces blood flow to an area of the brain. You will be monitored for signs of vasospasm, which include weakness in an arm or leg, confusion, sleepiness, or restlessness.

Epilepsy

Seizures can happen at any time after the haemorrhage. If you do have seizures they can usually be controlled with medication.

Medications

There will be some medications you will be taking whilst you are in hospital. Some of the common drugs used are:

Painkillers

Regular pain relief will be given to you to make sure you are comfortable at all times.

Nimodipine

This is a drug used in the prevention of vasospasm (narrowing of the blood vessels in the brain) after an SAH. You will need to take this for 21 days after the haemorrhage.

Anti-epilepsy drugs

You may only have to take these drugs for a few weeks or months, but in some circumstances you may have to have to take them for life.

Recovery

Recovery from an SAH varies from person to person. There is no set pattern or length of time for this. The outcome will generally depend on the severity of the bleed you have had. Many symptoms will continue for some months. Common symptoms are:

- headaches
- tiredness and restlessness
- feeling more emotional or anxious
- loss of movement/feeling in the left or right side of the body, including the arms and face
- problems with sight
- altered sense of smell and/or taste
- problems with memory
- cognitive difficulties (problems with thinking) can affect memory, concentration, decision making and general thought processes.

Research

During your stay in hospital you might be asked if you would like to be involved in some research projects. Your input is of great importance to us and may help us to understand SAH better. There is no pressure to take part and your decision won't affect your care.

A member of the research team may come to visit you during your stay.

Further information

If you have any questions or concerns, please speak to a member of staff.

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALS@ouh.nhs.uk**

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