PATIENT INFORMATION

INTRACEREBRAL HAEMATOMA
What is an intracerebral haematoma (ICH)?

An intracerebral haemorrhage (ICH) is a serious condition caused when a blood vessel within the brain bleeds leaking blood into the brain tissue. It is also known as a haemorrhagic stroke.

When there is bleeding within the brain, oxygen is deprived to an area of the brain as well as causing swelling and pressure within the brain.

The symptoms include:

- Sudden onset of headache often with nausea and vomiting
- Drowsiness and difficulty in responding
- Stroke like symptoms such as a weakness on one side of the face and or body
- Problems with speech and/or swallowing
- Problems with or loss of vision
- Dizziness and loss of balance
- Confusion or disorientation
- Seizures (fits)
**What causes an ICH?**

There are many causes for an ICH including

- High blood pressure which causes tiny arteries in the brain to build up pressure and burst deep within the brain
- Blood thinning medication such as warfarin, dabigatran or rivaroxaban, which are used to prevent clots forming in the body, such as within the heart or within the veins in the legs and lungs.
- A burst brain aneurysm (a defect in the wall of the blood vessel)
- Arteriovenous malformation (AVM), which is a tangle of abnormal blood vessels
- Head trauma
- Bleeding disorders such as thrombocytopenia, haemophilia or sickle cell disease
- Underlying brain tumours including vascular tumours known as angioma’s
- Cerebral Amyloid Angiopathy, which is an abnormal build-up of protein in the blood vessels of the brain making them leaky and susceptible to bleeding
- Over use of alcohol
- Smoking
- Diabetes
- Drug use such as cocaine, amphetamines or other illicit drugs
- Spontaneous or unknown cause

This booklet isn’t for you if you have an underlying cause such as an aneurysm, AVM or tumour: There is separate information and support which goes into more specific detail for these conditions.

**Who is affected?**

ICH is more common in men than women

Advancing age and hypertension are risk factors for spontaneous ICH

**How is an ICH diagnosed?**

In most cases, a CT scan of your head will confirm a diagnosis of ICH. This is a scan that uses X-rays and a computer to create detailed pictures of your brain.

Following that you will be transferred to the Walton centre for consideration of further specialist tests to diagnose an underlying cause for the bleed. These tests may include: -
- **CT angiogram**: A CT scan that is taken following an injection of contrast into a vein in your arm. A computer is used to make up detailed pictures of the blood vessels in your brain in order to diagnose an underlying vascular abnormality.

- **Angiogram**: An angiogram is a thin tube that is inserted into an artery in the groin. This is passed through the blood vessels to the brain. Dye is then injected, and X-ray pictures are taken. This will provide detailed images of the blood vessels in the brain, and will be considered if there is a suspicion that there may be an underlying vascular abnormality.

*Angiogram:*

- **Magnetic Resonance Imaging (MRI scan)**: An MRI scan uses magnets and radio waves to show very clear pictures of the brain. It is used to help diagnose other underlying causes, for example ischaemic stroke due to lack of blood flow to an area of the brain, or an underlying tumour. It will also detail the severity of the haemorrhage and its effect on your brain and would help understand how it has affected you for long term planning of your care.

**Treatment:**

Treatment depends on the underlying cause and how well you are.

If you are very unwell then life-saving treatment will be necessary.

**Medical treatment:**

If safe to do so, the haemorrhage will be left alone to reabsorb naturally. This will be the case if it is small and effects are minimal.

The effects of blood thinners will be reversed using drugs.

You will be monitored closely on the intensive care or specialist ward.

Blood pressure will be controlled using medication or infusions if necessary.

Pain will be controlled using medications.

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Other risk factors such as diabetes will be monitored and controlled

**Your care will be managed by the expert neurosurgical or neuromedical teams (sometimes both oversee care during your inpatient stay)**

Specialist management will be tailored according to the underlying cause

Please be aware that the effects of the bleed on your brain are likely to fluctuate. Symptoms may even get worse before they stabilise and improve. This is because of the toxic effects on the brain of blood breaking down.

If there is any concern, then you will have a CT scan to check on the situation and your management may change as a result. This may include the consideration of surgery.

**Brain surgery:**

If the clot is causing serious symptoms, emergency surgery is necessary to remove the clot and relieve the effects of the pressure on the brain. This is normally the case for large haemorrhages or those that are close to important structures of the brain such as the brain stem.

Surgery includes cutting a hole in the skull using specialist equipment to expose the brain and allow a neurosurgeon to remove the clot. If the brain is very swollen, the skull may be left off in order to give it room to swell and reduce the risk of dying from the effects of the bleed.

**External Ventricular Drain:**

In some cases, an external ventricular drain (EVD) is needed. This is a temporary thin plastic tube which is inserted to drain the fluid within the brain (cerebro-spinal fluid). This is necessary if there is a blockage to the drainage of the fluid because of the position of the bleed or to keep pressure in the brain down.
**Intensive care:**

It is sometimes necessary to have a stay in the Intensive Care Unit for specialist management and close monitoring to help lessen both the effects of pressure and blood toxins on the brain which can be life threatening.

If the effects of the haemorrhage are serious, or there is deterioration in symptoms it will be necessary to rest the brain and control the pressure within the skull by placing a patient into induced coma, where breathing is supported by a ventilator.

The pressure in the brain (intracranial pressure or ICP) may be monitored through a bolt attached through the skull. This helps the intensive care staff take measures to reduce the ICP. It also allows the doctors and nurses to recognise improvement before waking from the coma.

Intensive care stay may be for a number of weeks but once stable the team will prepare transfer to the wards for ongoing care and rehabilitation.

Feeding will be made possible by use of a tube from the nose to the stomach, where liquid food is used to maintain nutrition (NG tube)

Hydration will be maintained though fluids in the vein or through the NG tube.

**Recovery:**

Recovery is dependent on the size and position of the bleed, the underlying cause, the treatment you receive as well as your health and well-being prior to becoming ill.

Recovery follows a variable path and is specific to each person. You will have good days and bad days for a period of time.

Complications such as infection may delay or prolong your recovery

**Complications:**

Depending on the effects and location of the haemorrhage complications may include

- Loss or impaired movement on one side of the body
- Loss or impaired sensation on one side of the body
- Speech and language impairment
- Extreme tiredness
- Visual loss or problems such as double vision
• Cognitive dysfunction (memory loss, difficulty reasoning), confusion
• Memory impairment
• Seizures
• Low mood or depression

**Rehabilitation:**
It is likely that you will need specialist rehabilitation. The extent of this will be dependent on your symptoms and how poorly you have been.
This is specific to what is available in your local hospital or what the specialist team think will benefit you most. It includes medical input from a specialist in rehabilitation, physiotherapy, occupational therapy, speech and language therapy, dietetic review of your nutrition and psychology.
It may include:
• Specialist inpatient rehabilitation
• Referral back to the hospital you came from for specialist stroke rehabilitation
• Inpatient therapy in the Walton Centre and discharge home with the support of a local outpatient specialist rehabilitation team if needed.

**Ongoing management:**
You can reduce your chances of ICH by:
• Not smoking
• Keeping blood pressure controlled
• Keeping blood sugars controlled if you are diabetic
• Not taking illicit drugs such as cocaine or amphetamines
• Treating heart disease
• Keeping cholesterol under control
• Healthy diet
• Gentle exercise as able
• Keeping alcohol intake within government guidelines
Long term outlook:
This varies on person to person and depends on your health prior to the ICH, your age, the cause and the extent of damage from the bleed. It also depends on your response to the treatment and rehabilitation you have received.
Recovery can take months or years.
Most people who suffer an intracerebral haemorrhage have long term effects which can vary from mild, to needing long term care in a specialist nursing home.
Symptoms are specific to the individual. You may find that many symptoms are made worse if you are tired, under stress or ill. This is particularly so if you experience seizures, headaches or have been left with physical impairment as a result of the bleed.
Lifestyle is important when recovering. Lifestyle choices can make you feel worse or better.
Gentle exercise as you are able, eating well and preventing dehydration all help symptom control.
Getting the right amount of sleep helps; too much or too little sleep can make you feel worse.
If you do too much, you may feel worse that evening or the next day. The general rule is if you want to do something and feel able to, then you can. If you find a lot of activity makes you exhausted or worsens your symptoms, then plan an easy day afterwards.

Memory problems:
Memory problems are common in people who have had an ICH. You may be left with minor or big problems with your short-term memory, attention and concentration.

Visual problems:
Visual problems can occur. These can present as blurred, double, partial or very rarely, complete loss of vision and is often dependent on the position of the bleed. Assessment and help can be gained if you have visual problems through a specialist eye doctor called an ophthalmologist.

Extreme tiredness:
You will probably need rest once you get home particularly if you are having a lot of visitors or your house is very busy. Even simple tasks such as a walk to the local shop may leave you feeling exhausted. This should improve with time but may go on especially if you have a sever impairment from the ICH. You will know if you have done too much as you will be exhausted and may experience more headaches. This often happens early evening or the next day and means you have to take a rest! Pacing activities as well as regular exercise will help.
**Headaches:**

Headaches are common after ICH and usually they ease with time. They may, however, persist. Headaches can be triggered by dehydration, stress, illness, too much or too little sleep and missing meals. Prolonged or regular use of analgesia (paracetamol, ibuprofen, codeine, morphine etc.) may also worsen or prolong headaches so should be used sparingly and stopped if no longer required. Drinking 2 to 3 litres of water per day, regular meals, ensuring a good sleep pattern and in some instances avoidance of certain triggers (caffeine, alcohol, cheese etc.) can help reduce the frequency and severity of headaches. There are also some non-invasive treatment options such as menthol sticks to rub on the forehead which may help. Drinking more water and using pain relief at the start of a headache may also help. If headaches persist and are troublesome despite this, you may need specialist management.

**Everyday activities:**

**Driving:**

You must not drive, and must inform the DVLA if you have been diagnosed with an intracerebral haemorrhage and are still having symptoms after a month. This is because driving involves many different cognitive and physical skills as well as multi-tasking, decision making and problem solving.

You cannot drive if you have visual problems or ongoing stroke like symptoms

You cannot drive if you have had seizures as a result of the ICH.

You cannot drive if you are experiencing cognitive problems as a result of the ICH.

Driving restrictions are enforced by the DVLA and each case has to be approved individually. You must speak to your medical team or nurse to clarify driving restrictions.

You may be able to apply for a blue badge if you have been severely impaired as a result of the ICH. This will allow the car you travel in to park in specially designated disabled parking.

You may need specialist assessment to drive or be able to apply for an adapted car if you are cognitively recovered and have a limb weakness.

More details can be found on the DVLA website.
Sport and swimming:
Exercise is encouraged as it improves stamina and wellbeing. Most sports can be resumed once you feel able and any wounds have healed. You should build up your fitness slowly as you feel able.

Extreme exercise and contact sports are normally avoided until your investigations are completed and you are feeling fully recovered.

If you have seizures you may need to be careful about certain exercise such as swimming. Taking a companion and letting the lifeguard know is advisable if you have had seizures or for the first year after a bleed.

Flying:
Flying is not advised in the first six weeks following surgery. You should inform your holiday insurance company that you have had an ICH.

If you haven’t had any surgery there will still be restrictions with you flying until you are medically stable. Each case has to be assessed individually and so your medical team will advise this when you are in hospital.

Returning to work:
This depends on the effects of the ICH and the type of job you do. Also, how you are and whether you need a car to work. Most people benefit from some time off to recover and look after themselves. It is advisable to go back to work on a phased return. The length of time you need to recover is dependent on what has happened and what treatment you have had. Your neurovascular nurses will advise you.
Washing and dying hair:
You can wash your hair with mild shampoo, 3 days following surgery, but you cannot dye it until the wounds have fully healed.

Alcohol:
It is best to limit alcohol and adhere to government guidelines.
Excess alcohol increases blood pressure and puts strain on the heart, so is not advised.
If you experience seizures, there is a risk of provoking one if you drink too much alcohol.
If you are taking medication, you should check with your doctor if it is safe to drink alcohol with these.

Illicit drugs:
We recommend that you do not use illicit drugs as some may increase blood pressure for long periods of time which may cause harm.

Sex:
you can have sex as soon as you feel able.

Name: ...........................................................................................................

Date of ICH:.................................................................................................

Consultant: ...............................................................................................
**Walton Centre Contact Details**

For any medical problem or emergency see your G.P or your go to your local Accident and Emergency Department

For information regarding appointments or DVLA forms please contact your consultant’s secretary.

**Patient Experience Team** provides a PALS service.

0151 529 6100

**Neurovascular Nurse Specialists:** (practical advice)

0151 556 3325 or through hospital switch.

**Walton Centre switchboard** - 0151 525 3611

**Dott Ward** - 0151 529 5633 / 5634

**Cairns Ward** - 0151 529 5637 / 5638
Caton Ward - 0151 529 5628 / 5629

Chavasse Ward - 0151 529 5079

Sherrington Ward - 0151 529 5641 / 5642

Lipton Ward - 0151 529 8884 / 8738

High Dependency Unit - 0151 529 5489

Intensive Care - 0151 529 5772/ 5773

Useful Contact details

NHS 111: 111
Telephone advice if you need urgent medical help fast but it is not a 999 emergency (or you do not have a GP)
Website: http://www.nhs.uk and search ‘emergency and urgent care’

D.V.L.A. Driver Vehicle Licensing Authority,
Drivers Medical Group, DVLA, Swansea, SA99 1DL.
Medical Enquiries: 0800 032 5202  www.dvla.gov.uk

The Brain Charity: 0151 298 2999.
www.thebraincharity.org.uk
Offers practical help, emotional support and social activities for people with neurological injury.
And their families/carers

Stroke association: 0303 3033 100

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www.stroke.org.uk
Offers practical help, advise and local support groups

Headway: 0808 800 2244
Headway.org.uk
Offers support to improve life following brain injury

Epilepsy Action: 0808 800 5050
www.epilepsyaction.org.uk
Offers practical help for people who have seizures

Brain and Spine foundation: 0808 808 1000
www.brainandspine.org.uk

NHS Free smoking helpline: 0800 0224 332
www.nhs.uk/smokefree
England: 0300 123 1044  Wales: 0800 085 2219

Advice on Alcohol: www.drinkaware.co.uk or www.drinkingandyou.com

Notes: