The first 72 hours of stroke

The first hours after a stroke can be very scary and fast-paced. A stroke is a disruption in the blood supply to the brain. The brain depends on a supply of blood for the oxygen and nutrients it requires to function properly. When the blood supply is disrupted, brain cells are starved of oxygen and nutrients. This causes damage to the brain tissue. There are three goals for treatment in the first few hours after a stroke:

- To stabilise you by managing breathing, heart function, blood pressure, bleeding, swallowing and other symptoms.
- To make a diagnosis: The healthcare team will be working quickly to figure out the type of stroke you have had so that they can take action to prevent further damage to brain cells.You should receive a brain scan soon after you arrive at the hospital. This is usually a CT (computed tomography) scan. The scan may show the type of the stroke (a clot or a broken artery). A CT scan also finds the location of the stroke. Scan results help your healthcare team choose the best treatment options. Blood tests may be a part of your assessment.
- To provide early treatment: The type of treatment depends on the type of stroke. Ideally, stroke care takes place in a special stroke unit in the hospital.

There are different types of strokes which require different treatments, depending on whether the disruption in blood flow resulted from a blockage or a burst:

Ischaemic stroke: The blood vessels in the brain are blocked by a clot or have become too narrow for blood to get through. The reduction in blood flow causes brain cells in the area to die from lack of oxygen.

Treatment for an Ischaemic stroke: If a clot caused the stroke, you may benefit from a treatment called thrombolysis a clot- busting drug. This medication can help reopen blocked arteries. It must be given as soon as possible, ideally within 4½ hours after stroke symptoms started.

Sometimes, a person will have a transient ischaemic attack (TIA) or a 'mini-stroke'. This is caused by a temporary disruption in the blood supply to part of the brain. The individual usually makes a quick recovery, but a TIA must be taken seriously as it can increase the likelihood of a stroke in the future.

After you receive a clot-busting drug, the healthcare team will be watching extra closely for the first day. A repeat CT scan will be done to see how the drug worked and to check for potential complications – usually the next day.

Another treatment for an Ischaemic stroke is Endovascular thrombectomy (EVT). This is a common procedure where doctors insert a thin tube through an artery in the patient's groin, guiding it with X-ray imaging through blood vessels to the brain. Then, a retrievable stent is used to remove large clots in order to restore blood flow.

Haemorrhagic stroke: the blood vessel bursts, rather than being blocked. This results in blood leaking into the brain and causing damage.

Hemorrhagic stroke can be very serious and cannot be treated with clot-busting drug. It has a longer recovery time than ischemic stroke.

A neurosurgeon will determine with the team if an operation is needed. This might be needed to control the bleeding in your brain, to fix the damaged artery or to lower the pressure in your brain. The team will check often to make sure symptoms are not getting worse. They will monitor blood pressure and check for alertness, headache, weakness or paralysis, and other stroke symptoms.

Subarachnoid haemorrhage: there is bleeding into the area around the brain known as the subarachnoid space. This is usually due to a burst aneurysm, which is a weakness in the blood vessel wall.