### Artificial intelligence software for analysing CT brain scans (provisional title)

Several artificial intelligence software packages are available that can analyse CT scans to detect brain abnormalities. A CT scan of the brain is one of the first tests used for detecting brain abnormalities in people who arrive at hospital with a suspected acute stroke.

A stroke is a serious life-threatening medical condition in the brain. It is caused by a clot that cuts off the blood supply to the brain (ischaemic stroke) or by a blood vessel in the brain bursting and bleeding into the brain tissue (haemorrhagic stroke). The specific treatment for stroke depends on the cause and severity of the condition. Stroke can cause injury to the brain and lead to long-term disability. The sooner the stroke is treated, the less damage is likely to happen.

Detecting and distinguishing brain abnormalities in people with a suspected stroke requires a review of CT scan images by a radiologist. The artificial intelligence software packages aim to help this review. Use of the software is proposed to result in faster treatment and improved patient outcomes through quicker image review and by preventing subtle abnormalities being missed. It may also help prioritisation of critical cases. The NICE diagnostics assessment programme will assess the clinical and cost-effectiveness of artificial intelligence software for automated detection of suspected brain abnormalities in CT scans from people with a suspected acute stroke in order to make recommendations on their use in the NHS.