STROKE

What's the issue?

“A stroke is a serious, life-threatening medical condition that occurs when the blood supply to part of the brain is cut off. Strokes are a medical emergency and urgent treatment is essential because the sooner a person receives treatment for a stroke, the less damage is likely to happen” [202]. “A transient ischaemic attack (TIA) is caused by a temporary disruption in the blood supply to part of the brain, causing sudden symptoms similar to those of a stroke. However, a TIA does not last as long as a stroke. The effects often only last for a few minutes or hours and fully resolve within 24 hours” [203]. A TIA can be a precursor to a stroke. The two major types of strokes are ischaemic strokes resulting from a blood clot reducing the blood supply to the brain (85%) and haemorrhagic strokes resulting from a bleed on the brain (15%) [202, 204].

Strokes can cause lasting damage, affecting mobility, cognition, sight, movement of the upper limb or communication. Thus strokes can have a major impact upon individual lives and their families, and is the one of the largest causes of adult disability in the UK [205]. Nationally, stroke has the third highest disability adjusted life years (DALY – see the JSNA glossary, www.hullpublichealth.org/jsna2017.html#82) [81]. There is also a high social and economic cost to the community. Stroke is often preventable and there are more treatment options than ever before. After stroke individual recovery can be enhanced through specialist therapy and wider social support.

One survey, by examining the population attributable risk (PAR), found that history of hypertension (PAR 35%), current smoking (19%), waist-to-hip ratio (27%), diet risk score (19%), regular physical activity (29%), diabetes (5%), alcohol intake (4%), psychosocial stress (7%), depression (5%), cardiac causes (7%) and the ratio of apolipoproteins B to A1¹ (25%) collectively accounted for 88% of the PAR for all stroke [206].

What’s our situation?

For 2015/16, stroke and transient ischaemic attack prevalence is lower for Hull (1.56%) compared to England (1.74%) and six of seven comparator areas (range 1.68% to 2.23% except Leicester 1.19%) with 4,623 patients on the disease register [93]. There was no statistically significant association between deprivation and prevalence across the general practices in Hull [207]. This could simply reflect increased undiagnosed disease among those living in the more deprived areas rather than a lack of a true underlying relationship, and could be influenced by the higher general mortality rate among those living in the most deprived areas. Based on modelling on the GP population as at October 2016, it is estimated that there are 5,317 (1.81%) registered patients who have had a previous stroke, so around 700 patients with undiagnosed stroke or TIA [207]. There were 792 and 777 admissions for stroke for men and women respectively over the three year period 2008/09 to 2010/11 giving an annual average of 523 admissions per year [207]. The directly standardised admission rate was higher among men (183) compared to women (131) per 100,000 population [207]. For 2011/12, there were 408 emergency hospital admissions for stroke giving an indirectly age-standardised rate of 179 per 100,000 persons. Around 11% were re-admitted to hospital within 28 days of their discharge from hospital following an emergency admission for stroke, which was similar to comparator areas. For 2012-14, the age specific mortality rates for men and women were higher than England particularly so for both men and women aged 35-64 years and men aged 65-74 years (all 46-47% higher) [78]. The premature standardised mortality ratio in Hull was 144 for men and 135 for women, so 44% and 35% higher than England respectively. The SMR has decreased from 245 in 2001-03 (almost 2½ times higher than England for both men and

¹ Apolipoprotein B is the main apolipoprotein of chylomicrons and low density lipoproteins (LDL) “bad cholesterol” and apoliopoprotin A1 is the major protein component of high density lipoproteins (HDL) “good cholesterol”.

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women), although for men the current rate is significantly higher than England, and for women the SMR had decreased to 135, 114, 121 and 109 in 2008-10, 2009-11, 2010-12 and 2011-13, so has increased for the latest year [77, 78, 83, 207]. Over the three year period 2013-15, there were 517 deaths in Hull from stroke, of which 106 occurred prior to the age of 75 years [77, 78, 83, 207]. There was no statistically significant association between diagnosed prevalence or premature mortality and deprivation fifths, but there was for hospital admissions [207]. This suggests that there is inequality present, but it is complex and there are many potential reasons for the differences observed.

Social marketing research, completed in Hull during September 2009, to assess general public knowledge and perception of stroke revealed a relatively high awareness of the risk factors for stroke (lack of physical activity, poor diet, alcohol and smoking) and the most commonly named symptoms were drooping mouth, facial weakness, tingling down one side, paralysis down one side with most knowing that ‘time’ was important in terms of reaction time from the national “Stroke ACT FAST” advertisement campaigns. Although no-one knew what a TIA was, after an explanation one or two knew that a ‘mini-stroke’ could be a warning for a more serious stroke in the near future. Some people might behave differently if they were the ones – rather than someone else – having the symptoms “I think you treat yourself differently. You get up and carry on” [9].

For more detailed information, see the JSNA Toolkit: Stroke report.

What are the strategic needs?

It is necessary to work together to ensure people understand the benefit of positive life choices and know how to access information and seek early support to change. People need to know that stopping smoking has immediate health effects [110], with heart rate and blood pressure dropping within 20 minutes [200], and stroke risk falls to that of a non-smokers after 2-5 years [112, 113]. Work should continue to ensure that people realise that stroke is a medical emergency, and people with symptoms of a stroke or a TIA seek medical help immediately.

People aged 40-79 years who are eligible for the NHS Health Check should be encouraged to attend, and those who have already had a stroke or TIA should attend their annual reviews so that they get the best on-going treatment for their condition.

There is a need to work with partners to ensure that services are integrated, high quality and accessible in ways that offer people appropriate choices. Also working with partners to promote self-care, reablement or mutual support in community settings so this is viewed as the norm and reduce reliance on residential or home care.

The intention is to reduce mortality and levels of dependency following an acute stroke, reduce length of stay of stroke patients in bed-based services, reduce re-admission rates, facilitate earlier hospital discharge home to usual place of residence with the necessary support or into stroke community rehabilitation units, to increase numbers of patients supported to maximise their ability and independence in their own home, improve stroke survivor experience, improve detection and management of psychological issues in stroke survivors and ensure routine use of assessment tools to systematically assess patients at six months. National clinical guidelines for stroke are available [208, 209] which detail how to achieve these outcomes.

2 FAST – Face: “has their face fallen on one side?” – Arms: “can they raise both arms and keep them there?” – Speech: “is their speech slurred?” – Time: “time to call 999 if you see any single one of these signs”.

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References


