

Briefing: Stroke

Stroke is the second most common cause of death in London and the single largest cause of physical disability. In 2006, 976 Londoners under the age of 75 died of a potentially avoidable stroke. Nearly 1% of Londoners has had one or more previous strokes and in 2005/6 over 11000 Londoners were admitted to hospital with a stroke. About a third of people who have a stroke will die as a result of it.

In Haringey, there are between 425 and 525 strokes occurring each year. Data from local hospitals (which do not deal exclusively with Haringey residents) indicate that there were 598 emergency admissions for stroke (353 admissions at North Middlesex Hospital and 245 admissions at the Whittington Hospital) in 2005/6). It is difficult to obtain reliable prevalence data, though nationally, this is estimated to be 9% among men and 8% among women. There is widespread recognition of the underreporting of stroke. This is reflected in local GP stroke registers, which indicate that in 2007/08 there were 2218 (across 59 practices/Average 37.5 patients per practice) which equates to less than 1% of the population.

Stroke Services in Haringey – targets

There is one main target for stroke care: VSA14 Quality stroke care (outcome: Reduction in stroke related mortality and disability)

Haringey is currently ragged as Red against this target.

The target is then made up of six indicators (those in bold being the main two):

VSA14:01 Number of people who have a stroke who are admitted to hospital – target 44 per month

VSA14:02 Number of people who spend at least 90% of their time on a stroke unit – target 22 per month increasing to 29

VSA14:03 Proportion of people who spend at least 90% of their time on a stroke unit – target 50% increasing to 66%

VSA14:04 Number of people who have a TIA who are at risk – target 12

VSA14:05 Number of people who have a scan and are treated within 24hrs – target 3

VSA14:06 Proportion of people who have a TIA who are scanned and treated within 24hrs – target 25%

Stroke Services in Haringey – hospital services

The North Middlesex University Hospital (NNUH) and the Whittington Hospital both provide acute stroke services for people living in Haringey. A summary of key stroke services provided through these hospitals is provided in the table below:

Stroke service at the Whittington and NNUH 2005/6		
	Whittington Hospital	NNUH
Stroke Unit	Combined acute (6 beds) / rehabilitation (12 beds)	Dedicated Acute unit 8 beds (increasing to 16)

Stroke Services in Haringey – Primary Care

Upon discharge from hospital, the management and care of stroke patients is primarily undertaken through the GP. The performance of GPs in managing stroke patients (secondary prevention) is measured through the Quality and Outcomes Framework. This data indicated that in 2006/7 there were 2,259 patients on GP stroke registers and 2218 in 2007/08.

For Haringey as a whole, these patients would appear to be well managed by their GP through regular blood pressure and cholesterol monitoring, provision of anti blood thinning/thickening treatments.

Quality and Outcomes framework (QOF)

There are 8 indicators:

Records:

1. The practice can produce a register of patients with a stroke or TIA.
2. The % of new patients with a stroke who have been referred for further investigation.

On-going management:

3. The % of patients with TIA or stroke who have a record of blood pressure in the notes in the preceding 15 months.
4. The % of patients with a history of TIA or stroke whom the last blood pressure reading (measured in the previous 15 months) is 150/90 or less.
5. The % of patients with TIA or stroke who have a record of total cholesterol in the last 15 months.
6. The % of patients with TIA or stroke whose last measured total cholesterol (measured in the previous 15 months) is 5mmol/l or less.
7. The % of patients with a stroke shown to be non-haemorrhagic, or have a history of TIA, who have a record that an anti-platelet agent (aspirin, clopidogrel, dipyridamole or a combination), or an anti – coagulant is being taken (unless a contraindication or side effects are recorded).
8. The % of patients with TIA or stroke who have had influenza immunisation in the preceding 1st Sep-31st March.

The table below shows 2006/7 QOF performance against our NCL sector neighbours

<i>PCT Code</i>	<i>PCT Name</i>	<i>Number of Practices</i>	<i>Stroke Total Points Achieved /Available %</i>
5A9	BARNET PRIMARY CARE TRUST	76	96.7%
5C1	ENFIELD PCT	58	94.7%
5C9	HARINGEY PCT	59	92.6%
5K7	CAMDEN PRIMARY CARE TRUST	44	91.3%
5K8	ISLINGTON PRIMARY CARE TRUST	41	98.3%

The table below shows 2007/8 QOF performance against our NCL sector neighbours

<i>PCT Code</i>	<i>PCT Name</i>	<i>Number of Practices</i>	<i>Stroke Total Points Achieved</i>	<i>Stroke Total Points Achieved /Available %</i>
5A9	BARNET PRIMARY CARE TRUST	73	1,704.2	97.3%
5K7	CAMDEN PRIMARY CARE TRUST	42	967.9	96.0%

5C1	ENFIELD PCT	62	1,423.2	95.6%
5C9	HARINGEY PCT	58	1,330.2	95.6%
	ISLINGTON PRIMARY CARE			
5K8	TRUST	39	928.9	99.2%

Stroke Services in Haringey – Rehabilitation

A range of rehabilitation and intermediate care services are provided by local health and community care services and utilised by those people recovering from a stroke in Haringey. These include:

- Green Trees at St Ann's Hospital (50+ residential stroke care)
- Integrated community therapy team (rehabilitation in the clients home)
- Step down beds (to support community discharge)

What are the risk factors associated with stroke?

There are a number of risk factors which are associated with stroke which include demographic factors (e.g. age, gender and ethnicity), lifestyle (e.g. smoking, diet) as well as the existence of other health conditions (e.g. previous stroke, diabetes & heart disease). A table of the relative risk of these individual risk factors is shown below.

Risk Factor	Relative Risk
Age (per decade)	2.2
Male gender	1.4
BP (per 10mmHg diastolic)	2.3
BP ($\geq$ 160mmHg systolic)	2.5 – 4
Atrial fibrillation	5
Diabetes mellitus	2 – 3
Ischaemic heart disease	2.5
Heart failure	2.5 – 4.4
Peripheral vascular disease	2
Previous TIA	7
Previous stroke	9 – 15
Warfarin treatment	7 – 10
Smoking	2
Alcohol (> 30 units/week)	2.5 – 4
Family history	1.4 – 2

(From Kwain, 2001)

What can be done to prevent stroke?

Whilst there are a number of significant predisposing factors which may increase an individual's risk stroke is still considered to be largely preventable. Indeed, it has been estimated that first event of stroke may be reduced by up to 50% through population and primary care prevention alone.¹ Stroke prevention however needs to be balanced between primary prevention (first event) and secondary prevention (reoccurrence) as both of these strategies have been shown to have a considerable impact in reducing the overall incidence of stroke.

Given the similarities in risk factors, strategies for the primary prevention of stroke strongly correlate with those strategies to prevent coronary heart disease and diabetes. Common components in these strategies include educational interventions (e.g. awareness) and behaviour modification (e.g. changes in diet or exercise). There is evidence to suggest that these strategies are also effective at reducing the risk of stroke⁶:

- Reducing salt intake as effective as medication for reducing blood pressure

¹ Epidemiology of Stroke (J Kwain) Journal of Geriatric Medicine, 3 (3) 94-98 2001

- Increased physical activity reduce stroke risk by 25-60%
- Smoking cessation reduces risk of stroke to that of a non smoker within 5 years
- Reducing blood pressure to normal levels reduces risk of stroke by 40% in all ages

Given the significant risks of a reoccurrence of a stroke, secondary prevention is important to include within stroke prevention strategies. Patients who have suffered a stroke remain at an increased risk of a further stroke of between 30% and 45% within 5 years of the first event, therefore require ongoing review and management of their stroke risk factors. The Quality & Outcomes Framework (QOF) provides inducements for GPs to monitor and manage these risk factors in their practice caseloads.

In April 2008, a national programme of vascular checks was announced to ensure that all those aged between 40 and 74 are routinely and systematically offered checks for stroke, coronary heart disease, diabetes and kidney disease.² We will develop strategies to ensure that vascular checks are available through primary care and a broader range of providers within the community i.e. Pharmacies

Work undertaken by the London Health Observatory would appear to underline the need to develop stroke prevention through community wide action and primary care services. Given the relative costs of different stroke prevention strategies (below) it is evident that the most efficient methods of reducing the risk of stroke are centred within community and primary care based approaches given the relative costs of other clinical based alternatives.

Cost of preventing 1 stroke per year ⁶	
Measures	£
Quit smoking independently	Nil
Quit smoking with NRT	£12,000
Aspirin for those at increased risk of stroke	£600
Treatment of high blood pressure	£1,000-£7,000
Anti-coagulation	£9,000
Statins (cholesterol reducing)	£20,000-£25,000
Carotid surgery (removal of plaque from arteries)	£162,000-£232,000

Although evidence would appear to suggest that stroke prevention strategies should be focused through primary care, such strategies face a number of distinct challenges particularly those based in London and other major conurbations. We need to ensure that stroke prevention strategies address primary care issues pertinent to these areas, particularly:

- Transient populations
- Ethnically and culturally diverse populations
- Culturally sensitive in primary care services
- High level of un-registered populations
- Uneven distribution of primary care services and workers
- Variable quality of primary care services

Current service issues and gaps:

Nationally there are number of well documented concerns about the nature, organisation and capacity of services to support those people who have had, or at risk from, a stroke. These concerns encompass the whole spectrum of stroke service provision:

- Poor identification of stroke risk factors (i.e. hypertension) in the community
- Variable support and management of those with underlying stroke risk factors
- Poor access to emergency brain scans

² Putting Prevention First Vascular Checks, risk assessment and management DoH 2008
Stroke Brief 06.10. 08

- Limited capacity within dedicated stroke units and the specialist care available through these units
- Few patients receive rehabilitation through specialist multi-disciplinary teams in the community.

Suggestions for development

1. Local implementation group(LIT) for Stroke
2. Development of local stroke strategy
 - Raising awareness – improve public knowledge of stroke and its symptoms.
 - Prevention of stroke – action to promote healthier lifestyle and reduce vascular risk.
 - Patient and carer involvement – effective communication and planning of care.
 - Acting on warnings – ensure assessment of those with TIA within 24 hours.
 - Stroke is an emergency – getting stroke patients to appropriate hospital care quickly.
 - Stroke unit quality – develop capacity and access to specialist stroke units.
 - Community rehabilitation – expand specialist multidisciplinary care in community.
 - Community participation – assist stroke survivors back in to community life.
 - Workforce – ensure that the workforce is appropriately stroke skilled.
 - Service improvement – research & evaluation to support service development
3. Stroke register
4. Stoke handbook
5. Increase capacity at Greentrees