

Public Health Aspects of Stroke

Suggested responses to exercises

Exercise 1: Find out the statistics on stroke in your local region (e.g. London or a part of London). Discuss the trends – does it reflect national statistics? If different, give some suggestions why you think this might be.

For London a good source might be the London Health Observatory www.lho.org.uk. You also might try www.heartstats.org or look up your 'local stroke registry (the South London Stroke Registry is a good source).

National statistics show that stroke mortality rates are falling, but around 1 in 20 deaths are from stroke in under 75. Social inequality in stroke persist, ethnic differences (men from South Asia have high rates) prevalence of Stroke for people over 75 increasing, particularly for men). Stroke prevalence rates in UK (under 75) between 2 and 3 percent.

Information from LHO

In London: Prevalence of stroke in London (self reported) 2.3% men and 2.1% women (1998) Historically, mortality from cardiovascular diseases (including stroke) in London has been lower than national average. However within Inner London and amongst younger people mortality rates are higher. In the 10 - 15 years to 1996, the decline in rates in London did not keep pace with national changes, especially in Inner London. Since 1996, rates of death from cardiovascular disease (including Stroke) have continued to reduce in London, although still at a lower rate than nationally.

There are large social class inequalities in mortality from cardiovascular disease. These effects can be seen in the relative mortality rates in the most and least deprived areas within London. In terms of SMRs, when all ages are considered, the SMR for London is significantly lower than England (97), although there are 10 boroughs which have an SMR significantly above the England average (1998-2002 data) When mortality for people under 75 is considered, the London average is significantly higher than England (SMR - 106) with 16 of the boroughs having SMRs significantly higher than England. The worst affected PCT (Newham), having an SMR of 164. 8 boroughs had SMRs which were significantly lower than the England average, the lowest being 72 (Kensington and Chelsea).

The observed prevalence of stroke among Black Caribbeans was 3.2%. After adjusting for age, rates of stroke among Black Caribbean men were over two-thirds higher than in the general population (risk ratio 1.66). Indian men also had higher rates than the general population.

Exercise 2: Discuss why stroke mortality is decreasing in Western Countries

Note: only declining in Western parts of Europe, not in Eastern Countries.

Possible reasons: Health promotion campaigns, improvement in diet (dietary fat intake) Effective management of risk factors (hypertension). Improved understanding of warning signs (TIA's) - diagnosis and treatment. Access to stroke services; treatment (prevention and intervention measures) acute care (e.g. speed of response – distance to hospital)

Exercise 3: Violet, a 55 year old widow comes to the surgery for a health check to determine her risk of CVD/stroke. She has no family history of stroke, though her mother had high blood pressure. Her recent BP was 140/95 though she has never had any problems in the past with raised blood pressure. She currently weighs 88.5 KG and her height is 5ft 7ins. She has been trying to lose weight for a number of years but since her husband's death two years ago she has been feeling low and not wanting to exercise. She smokes 10-15 cigarettes a day and has the occasional glass of wine to cheer her up.

From the available evidence, and assuming no change in health behaviour:

- a) What risk would you say Violet had of developing cardiovascular disease or stroke within the next few years (high – medium – low?)
- b) How would you calculate this total risk?
- c) What further information might help with this assessment?
- d) What advice (including treatment) would you give?
- e) What other aspects should be considered when advising/guiding on health behaviour change (consider the evidence)?

Using Frammington risk assessment (based on systolic blood pressure, age, genetic predisposition and other clinical signs) her risk is relatively low, 4%. However, taking other risk factors into account, weight, and lifestyle (see Brainaustralia self assessment of risk chart below) her risk is higher, 9-11 (moderate/high risk). Further information would be cholesterol level – clinical checks on total/hdl cholesterol.

Advice: health and lifestyle – cholesterol check. Mental health to consider – counselling (bereavement).

Stroke Risk Self Assessment Chart

Instructions: Score each line and then add up your total score. The lower your score, the better. The higher your score, the greater your risk of having a stroke. An approximate guide to the risk is:

- 0 - 4 : Very low risk
- 5 - 9 : Moderate risk
- 10 - 13 : High risk
- 14+ : Very high risk

| Risk Factors | 0 | 1 | 2 | 3 | Score |
|-------------------------|---|--|---|---|-------|
| Smoking | never smoked | quit after smoking for less than 5 years | current smoker less than 20/day | current smoker more than 20/day | |
| Exercise | 1 hour strenuous activity at least 3 times per week | very active once or twice a week | moderately active once or twice a week | very little physical activity | |
| Diabetes | none known | n/a | family history | diabetic | |
| Blood Pressure | normal | mild high blood pressure | moderate high blood pressure | severe high blood pressure | |
| Age | 0 - 44 | 45 - 64 | 65 - 74 | 75 + | |
| Alcohol (male) | 0-4 standard drinks/week | up to 4 drinks/day | more than 4 drinks a day 2 or more days a week | more than 6 drinks, 4 or more days a week | |
| Alcohol (female) | 0-2 standard drinks a week | up to 2 drinks a day | more than two drinks a day, 2 or more days a week | more than 4 drinks, 4 or more days a week | |
| Weight | about average | slightly | moderately | obese | |

| | | | | | |
|-----------------------|------------------|-----------------------------|---|---|--|
| | for height | overweight | overweight | | |
| Family History | no strokes known | a relative has had a stroke | a relative has had a stroke while younger than 65 | several relatives have suffered from stroke | |
| Cholesterol | below average | average | moderately raised | severely raised | |

Brain Foundation (c)

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Exercise 4

Either individually or in pairs, thinking about the unit as a whole and looking at the stroke strategy above, describe what you feel you can do, in your role as a health professional, to prevent strokes at the primary and secondary level.

Some ideas: Use the National Stroke Strategy Ten Point Plan of Action to help – focus on the prevention part of the plan. Ideas can be around targeting those at risk – awareness raising around stroke - ideas to promote healthy lifestyle in particular risk groups/areas Providing information about stroke (populations at risk) – working with local voluntary organisations (to provide information and advice – health promoting interventions) – find out about local stroke register (GP). Stroke risk assessment – use of NHS Health Check – other risk assessment tools. Commissioning services for prevention of CVD.
