

Chapter 18

Cardiovascular disease

18.9 Key audiences

Primary care trusts:

- commissioners of services for older people
- commissioners of acute services
- directors of public health
- GPs.

NHS trusts and NHS foundation trusts:

- medical directors
- care of the elderly physicians
- cardiology unit clinicians and managers
- stroke unit clinicians and managers
- directorate management teams
- emergency care leads.

Ambulance trusts:

- medical directors
- frontline staff
- service managers.

18.2 Key issues and concerns

Summary

In both primary and secondary care, there has been evidence of under-investigation, under-diagnosis and under-treatment of cardiovascular disease (CVD) in older people and these differences were not justified by the levels of need in older people. However, there are some more recent indications that older people are now getting better access to cardiac surgery and that outcomes are improving for older people.

Historical concerns about age discrimination in relation to CVD

A recent review of the literature in relation to primary care referred to sources that showed that:

- Older people, compared with younger people, were more likely to receive both delayed and fewer diagnostic interventions; fewer prevention drugs; fewer prescriptions for drugs that are known to be effective cardiac treatments; and have more limited access to specialist care facilities.⁵⁴⁶ Research commissioned by the House of Commons Health Committee inquiry into health inequalities found that, in 2005, patients aged 75 years and over with coronary heart disease were less likely to be prescribed a beta blocker, aspirin or an ACE inhibitor.⁵⁴⁷
- There was evidence of gender and age inequality in the prescribing of preventive cardiovascular therapies to older people in primary care.⁵⁴⁸
- GPs appear reluctant to follow guidelines for cholesterol measurement and lipid lowering agents in people over 75.⁵⁴⁹
- In relation to secondary prevention of coronary heart disease in older people, older age was related to a lower prevalence of drug use, particularly statins.⁵⁵⁰
- Older people with heart failure are denied potentially beneficial treatments available to younger patients; services remain underdeveloped for management of heart failure with largely unseen demand for investigations, clinical assessment and care.⁵⁵¹

⁵⁴⁶ *The influence of patient's age on clinical decision-making about coronary heart disease in the USA and the UK*, Adams A, Buckingham C D, Arber S, McKinlay J B, Marceau L and Link C, *Ageing and Society* 26 (2): 303-322, 2006

⁵⁴⁷ *House of Commons Health Committee study*, Parliament, 2008

⁵⁴⁸ *Evidence for a gender and age inequality in the prescribing of preventative cardiovascular therapies to the elderly in primary care*, Usher C, Bennett K and Feely J, *Age and Ageing* 33 (5): 500-502, 2004

⁵⁴⁹ *Preventive health care in elderly people needs rethinking*, Mangin D, Sweeney K and Heath I, *British Medical Journal* 335 (7614, 11 August): 285-287, 2007

⁵⁵⁰ *Secondary prevention of coronary heart disease in older British men: extent of inequalities before and after implementation of the National Service Framework*, Ramsay S E, Morris R W, Papacosta O, Lennon L T, Thomas M C and Whincup P H, *Journal of Public Health* 27 (4): 338-344, 2005

⁵⁵¹ *Barriers to accurate diagnosis and effective management of heart failure in primary care: qualitative study*, Fuat A, Pali A, Hungin S and Murphy J J, *British Medical Journal* 326 (7382, 25 January 2003) : 196-200

(The above references are all cited in *Ageism and age discrimination in primary health care in the United Kingdom – a review from the literature*, Centre for Policy on Ageing [CPA] 2009.)

In secondary care:

*“There is clear and widespread evidence of age discrimination in the hospital-based investigation and treatment of heart disease and in the instigation of secondary prevention regimes following treatment.”*⁵⁵²

The CPA review of age discrimination in secondary care also indicated that:

- Patients with acute myocardial infarction (heart attack) who are aged 75 and over have been much less likely to have an echocardiogram, exercise tolerance tests or cardiac catheterisation study.⁵⁵³
- The differences in how older people with CVD are diagnosed and treated are so marked that they are unlikely to be accounted for by co-morbidity or frailty in the older patient. (General conclusion from CPA review of age discrimination in secondary care.)

In addition, there is evidence nationally and regionally that the age standardised admission rate for revascularisation varies, with people aged over 80 getting poorer access than younger groups, although the extent of this varies across the country. The Association of Public Health Observatories (APHO) concludes that:

*“The difference between regions does not demonstrate that any is too ready or too reluctant to undertake this procedure in older people.”*⁵⁵⁴

All these differences in treatment are potentially evidence of possible age discrimination. Primary care trusts (PCTs) will want to work with the providers to ensure that there is not hidden discrimination in their locality and that differences between age groups can be justified.

An improving picture

There are, however, more positive developments in the treatment of coronary heart disease (CHD), which may indicate that age discrimination in relation to CVD is now being addressed more effectively. Recently, the *Sixth National Adult Cardiac Surgical Database Report* (2008) presented the following

⁵⁵² *Ageism and age discrimination in secondary health care in the united kingdom. A review from the literature*, CPA, 2009

⁵⁵³ *Age- and sex-related bias in the management of heart disease in a district general hospital*, Dudley N J, Bowling A, Bond M, McKee D, Scott M M, Banning A, Elder A T, Martin A T and Blackman I, *Age and Ageing* 31 (1): 37-42, 2002

⁵⁵⁴ *Indications of public health in the English regions. People, Report 9 Older people, 2008*
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statistics that indicate better access and better outcomes for older people who undergo coronary artery bypass grafts (CABG):

- The mean age of patients undergoing isolated CABG has increased from just over 63 years in 2000 to just over 66 in 2008.
- In 2008, 25 per cent of all patients undergoing coronary artery bypass surgery were over 75 years of age. This has increased from 10 per cent in 1999.
- There is a gradually increasing number of patients over the age of 80 years undergoing CABG, and they made up 4.4 per cent of all operations in 2008.
- Despite the increase in the age of the patients, mortality has fallen from 1.9 per cent in 2004 to 1.5 per cent in 2008. There has been a marked fall in the mortality of patients over the age of 75 from 5.0 per cent in 2004 to 3.4 per cent in 2008.
- Increasing age is strongly associated with longer in-hospital post-operative stay and reduced medium-term survival. However, the medium-term survival rate for patients over 80 years is better than 65 per cent at five years.⁵⁵⁵

The latest (2008) British Cardiovascular Intervention Society (BCIS) audit on interventional cardiology shows differentially better results in reducing mortality in older people after a heart attack.⁵⁵⁶

Also, primary angioplasty or primary percutaneous coronary intervention (PPCI), has been proven to lead to better longer-term outcomes for patients suffering a heart attack, with less risk of having a stroke and less risk of having a further heart attack.⁵⁵⁷ Encouragingly, the Equality Impact Assessment of the National Guidance on the treatment of heart attack found that there was no significant evidence that older patients were more likely to be treated with thrombolysis than PPCI. Twenty per cent of those aged less than 80 received thrombolysis, 23.8 per cent of those aged 80 or more were treated with this strategy.⁵⁵⁸

Stroke and stroke prevention

“The presence of ischaemic and/or coronary heart disease may be associated with the occurrence of a transient ischaemic attack (TIA -

⁵⁵⁵ www.scts.org/sections/audit/Cardiac/index.html

⁵⁵⁶ www.bcis.org.uk/pages/page_box_contents.asp?pageid=705&navcatid=11

⁵⁵⁷ *Treatment of Heart Attack National Guidance, Final Report of the National Infarct Angioplasty Project (NIAP)*, Department of Health, 2008

⁵⁵⁸ *Equality Impact Assessment Treatment of Heart Attack National Guidance*, Department of Health, 2008

www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_089453.pdf

*mini-stroke) or with stroke. It is not surprising therefore to find evidence, in routine clinical practice, of under-investigation and under-treatment of carotid disease in older patients with TIA and stroke.”*⁵⁵⁹

Historical concerns about age discrimination in relation to stroke

Inequalities in access to appropriate diagnosis and treatment appear to have persisted in spite of a growing body of evidence that has overturned the traditional perception that stroke is simply a consequence of ageing which inevitably results in death or severe disability. There has also been evidence of age discrimination in relation to access to stroke units.⁵⁶⁰ Also, a recent article suggests that older patients referred to a neuro-vascular clinic were less likely to receive diagnostic investigations and lifestyle modification advice than younger patients.⁵⁶¹

Also, older people are less likely to receive cholesterol-lowering treatments recommended for the secondary prevention of stroke, despite the treatment being equally effective across age groups. Although rates of secondary drug prevention are generally low, 26.4 per cent of patients aged 50-59 received treatment compared with 15.6 per cent of patients aged 80-89 and just 4.2 per cent of those aged 90 or more.⁵⁶²

Improvements in stroke care

However, there are signs of overall improvements in stroke care. A progress review in 2006 found that more good quality care than ever before is available to people who have had a stroke. All of the general hospitals caring for people who had had a stroke in the communities inspected provided a specialist stroke service, which operated according to the clinical guidelines for best practice approved by the Royal College of Physicians. Seven of the 10 communities inspected also had a stroke unit.⁵⁶³

More recently published reports also give indications of improved standards overall, even though it is not always possible to ascertain whether the improvements have benefited all age groups equally. For example, the Royal College of Physicians' National Sentinel Stroke Audit found that, overall, every single standard that was measured in 2006 and again in 2008 has improved.

⁵⁵⁹ *Ageism and age discrimination in secondary health care in the united kingdom. A review from the literature*, Centre for Policy on Ageing (CPA), 2009

⁵⁶⁰ *Secondary prevention for stroke in the United Kingdom: results from the National Sentinel Audit of Stroke*, Rudd A G, Lowe D, Hoffman A, Irwin P and Pearson M, *Age and Ageing* 33 (3): 280-286, 2004

⁵⁶¹ *Do older patients receive adequate stroke care? An experience of a neurovascular clinic*, Kee Y-Y K, Brooks W, Bhalla A, *Postgrad Med J*; 85:115-118, 2009

⁵⁶² *Sociodemographic variations in the contribution of secondary drug prevention to stroke survival at middle and older ages: cohort study*, Raine R, et al, *BMJ*; 338:b1279, 2009

⁵⁶³ *Living well in later life: a review of progress against the National Service Framework for Older People*, Healthcare Commission (HHC), Commission for Social Care Inspection (CSCI) and Audit Commission, 2006

Of particular note are the changes in accessing stroke unit care, imaging, speech and language therapy, physiotherapy and occupational therapy.⁵⁶⁴

Recent information from the National Audit Office⁵⁶⁵ indicates that the Department of Health's strategy for stroke care has increased the priority and awareness of the condition and started to improve patients' care and outcomes, although it does not give information relating to the experience or outcomes for different age groups. It notes that further work needs to be done in tackling the variations in the extent to which services have been reconfigured to improve access to emergency stroke care. Also, improvements in acute care are not yet matched by progress in delivering more effective post-hospital support for stroke survivors and their carers. There is a need for better joint working between health and social care, community care and care homes and other services including benefits and employment services.

Attitudes

Historical differences in the treatment of older people with CVD may reflect the attitudes of different groups of staff. The CPA report on age discrimination in secondary care describes a 2006 study by Bowling *et al.* comparing the responses of cardiologists, care of the elderly specialists and GPs to a set of hypothetical patients presenting with possible heart-related symptoms. This study found that care of the elderly specialists are much less likely than cardiologists to refer a patient for an angiogram or revascularisation and also less likely than a GP to refer a patient to a cardiologist. Those most influenced by age made a range of comments, such as:

“If they are in their 90s with chest pain and angina I might be less likely to refer.”

“I would be less likely to prescribe for an older patient.”

“Age has a definite influence. I'd be more likely to refer a 65- than a 95- year-old because they probably wouldn't survive surgery at that age.”

“They wouldn't want an angiogram if they were over 70.”⁵⁶⁶

On the face of it, it appears from the quotations above that age discrimination was a factor here, with care of the elderly specialists offering fewer choices to their patients, but some might argue that care of the elderly specialists offer a more 'age appropriate' service based on a more holistic approach.

⁵⁶⁴ *National Sentinel Stroke Audit. Phase II (clinical audit) 2008 - Report for England, Wales and Northern Ireland*, Royal College of Physicians, April 2009

⁵⁶⁵ *Progress in improving stroke care*, National Audit Office, 2010

⁵⁶⁶ *Variations in cardiac interventions: doctors' practices and views*, Bowling A, Harries C, Forrest D and Harvey N, *Family Practice* 23 (4): 427-436, 2006

There is evidence in the CPA review of age discrimination in primary care that GPs experienced specific problems in diagnosing and treating older patients with heart failure. Uncertainties about clinical practice, a lack of confidence in establishing an accurate diagnosis, and a lack of awareness of research in a complex and rapidly changing field can be as damaging to older people as outright age discrimination.

Dual/Multiple discrimination

Factors that may contribute to dual/multiple discrimination need to be considered in the context of CVD as there are a range of factors that may be relevant to achieving equal access to appropriate treatment. *The National Service Framework for Coronary Heart Disease*⁵⁶⁷ recognised that "many people with CHD are not receiving treatments of proven effectiveness" and there are "unjustifiable variations in the quality and access to some CHD services". Such variations appear to relate to factors such as gender and ethnicity.

Gender

Variations in treatment that appear to be age-related are compounded by gender, for example in the investigation and treatment of heart disease in older women, who may experience discrimination both as a result of their age and their gender.⁵⁶⁸

Similarly, an age and gender bias exists in the prescription of important secondary preventive therapies in primary care that may lead to increased mortality from ischaemic heart disease in these groups.⁵⁶⁹

Ethnicity

South Asian people born in India, Bangladesh, Pakistan or Sri Lanka are approximately 50 per cent more likely to die prematurely from coronary heart disease than the general population. The death rate is 46 per cent higher for men and 51 per cent higher for women.⁵⁷⁰ However, this does not explain the reasons for the higher rates of premature death. These differential rates need to be understood and addressed at a local level.

⁵⁶⁷ *National Service Framework for Coronary Heart Disease*, Department of Health, 2000

⁵⁶⁸ *Age- and sex-related bias in the management of heart disease in a district general hospital*, Dudley N J, Bowling A, Bond M, McKee D, Scott M M, Banning A, Elder A T, Martin A T and Blackman I, *Age and Ageing* 31 (1): 37-42, 2002. Quoted in *Ageism and age discrimination in primary health care in the United Kingdom – a review from the literature*, 2009

⁵⁶⁹ *Ageism and age discrimination in primary health care in the United Kingdom – a review from the literature*, CPA 2009

⁵⁷⁰ *Heart disease and South Asians: delivering the National Service Framework for coronary heart disease*. British Heart Foundation/Department of Health, 2004

A 2004 study⁵⁷¹ found that prevalence of cardiovascular disease increased significantly between 1999 to 2004 in Pakistani men (from 4.8 per cent to 9.1 per cent) and Indian women (from 2.3 per cent to 4.2 per cent).

According to a 2004 study, the prevalence of stroke was highest among people who were aged 55 and over and black Caribbean men had the highest prevalence (11.5 per cent) while among women aged 55 and over the highest prevalence was among Bangladeshi (11.9 per cent) and Pakistani (10.1 per cent) people.⁵⁷²

However, in spite of high rates of CVD in some minority ethnic groups, there has, for a long time, been evidence that some black and minority ethnic (BME) groups do not access the full range of services for CVD in a timely manner. This may be due to reasons far more complex and subtle than actual discrimination, such as atypical presentation in some ethnic groups, leading to slower triage and access to appropriate treatment. For example, a study of Bangladeshi patients in east London, showed that there were no significant differences between Bangladeshi and white patients in the time from pain onset to hospital arrival but once in hospital it took almost twice as long for Bangladeshi as for white patients to receive thrombolysis.⁵⁷³

People with learning disabilities

Increasingly, people with learning disabilities are living longer and, as they age, they will often have greater health problems than other people of their age, or they may, at a younger age, have problems that are associated with old age in the general population. For example, 50 per cent of people with Down's Syndrome also have a congenital heart condition. However access to prevention, screening and treatment is often poorer for people with learning disabilities than for other people. They may also suffer from “*diagnostic overshadowing*” (the term used by the Disability Rights Commission and others to describe the tendency to attribute symptoms and behaviour associated with illness to the learning disability, and for illness to be overlooked). People with a learning disability are far less likely than other people to have regular health checks from their GP or take part in health screening programmes.⁵⁷⁴

⁵⁷¹ *Health Survey for England 2004: The Health of Minority Ethnic Groups*, National Statistics/The Information Centre, 2004

⁵⁷² *Health Survey for England 2004: The Health of Minority Ethnic Groups*, National Statistics/The Information Centre, 2004

⁵⁷³ *Bangladeshi patients present with non-classic features of acute myocardial infarction and are treated less aggressively in east London, UK*, Barakat K, Wells Z, Ramdhany S, Mills P G, and Timmis A D, *Heart*; 89(3): 276–279, March 2003

⁵⁷⁴ *Healthcare for All - Report of the Independent Inquiry into access to healthcare for people with learning disabilities*, Sir Jonathan Michael, 2008

18.3 Drivers and policy imperatives

The National Service Framework for Coronary Heart Disease

The National Service Framework for Coronary Heart Disease (NSF CHD), published in March 2000, set out a strategy to modernise CHD services over ten years. It detailed 12 standards for improved prevention, diagnosis, treatment and rehabilitation, and goals to secure fair access to high quality services. Many of these standards have now been implemented, and current good practice would, in some instances, go beyond the NSF CHD's original standards. It is important to ensure that relevant standards are applied in a non-discriminatory and age-appropriate manner.

National Service Framework for Older People

In addition to Standard One (Rooting out age discrimination), Standard Five of the *National Service Framework for Older People* (NSFOP)⁵⁷⁵ specifically applied to strokes. The aim of this standard is to reduce the incidence of stroke in the population and ensure that those who have had a stroke have prompt access to integrated stroke care services. It stated:

“The NHS will take action to prevent strokes, working in partnership with other agencies where appropriate.

“People who are thought to have had a stroke have access to diagnostic services, are treated appropriately by a specialist stroke service, and subsequently, with their carers, participate in a multidisciplinary programme of secondary prevention and rehabilitation.”

National Stroke Strategy

The National Stroke Strategy⁵⁷⁶ is intended to provide a quality framework to secure improvements to stroke services, give guidance and support to commissioners and strategic health authorities and social care, and inform the expectations of patients and their families by providing a guide to high quality health/social care services. It includes a ten-point plan for action, covering the following areas:

1. Awareness: action to improve public and professional awareness of stroke symptoms
2. Preventing stroke
3. Involvement: are people with stroke informed partners in their care planning?
4. Acting on the warnings: about transient ischaemic attacks (TIAs)

⁵⁷⁵ *National Service Framework for Older People*, Department of Health, 2001

⁵⁷⁶ *National Stroke Strategy*, Department of Health, 2007

5. Stroke as a medical emergency: getting people to the right hospital quickly
6. Stroke unit quality
7. Rehabilitation and community support
8. Participation: assistance to overcome physical, communication and psychological barriers to engage and participate in community activities
9. Workforce
10. Service improvement.

High Quality Care For All – NHS Next Stage Review Final Report

Amongst its many proposals, Lord Darzi's *Next Stage Review*⁵⁷⁷ proposed raising awareness of vascular risk assessment through a new *Reduce Your Risk* campaign.

Building a Society for all Ages (2009)

*Building a Society for all Ages*⁵⁷⁸ is a consultation document, published in 2009, which sets out the Government's strategy for making improvements to older people's lives. Two of its proposals are particularly relevant to CVD:

- NHS Health Check (for heart disease, diabetes, kidney disease, stroke) to be introduced in 2009/10 for people 40 – 70 years. This is now part of a consultation on new rights within the NHS Constitution.
- Introduction (in 2009/10) of a pilot scheme for NHS Mid-life LifeChecks - looking at smoking, healthy eating, alcohol use physical activity and emotional wellbeing. This is described as a vascular risk assessment and management programme for people in England who will be offered a check once every five years to assess their risk of heart disease, stroke, kidney disease and diabetes, followed by individually-tailored advice to support them in managing or reducing their risk.

The strategy also refers to *Be Active, Be Healthy*⁵⁷⁹ which sets out the Government's framework for the delivery of physical activity for adults, alongside sport and based upon local needs, with particular emphasis upon the physical activity legacy of the 2012 London Olympic and Paralympic Games.

⁵⁷⁷ *High Quality Care For All – NHS Next Stage Review Final Report*, Lord Darzi, Department of Health, 2008

⁵⁷⁸ *Building a Society for all Ages*, HM Government, 2009

⁵⁷⁹ *Be Active, Be Healthy*, Department of Health, 2009

NICE Guidelines

There are a number of NICE Guidance publications relevant to CVD, with further guidance in production. See

→ www.nice.org.uk/guidance/index.jsp?action=byTopic&o=7195&set=true

18.4 What good age-equal practice might look like

In addition to applying the most up-to-date standards for the prevention, detection and treatment of CVD in the general population, age-equal practice in relation to CVD would:

- ensure that ageist attitudes do not stand in the way of appropriate CVD services for older people. This may require recurrent audits of the care offered to older people with or at risk of CVD and, where necessary, training and development for staff at all levels
- pay particular attention to groups who are most at risk of developing CVD (e.g. people in lower socio-economic groups, some minority ethnic groups)
- ensure that BME groups who tend to have poorer access to appropriate treatment and care are offered appropriate services, with particular reference to language and cultural factors
- review barriers to care and provision of appropriate information on services, providing appropriate bilingual services for effective communication
- review pathways for stroke and CVD to ensure that they are appropriate for people of all ages. This may mean having some services that are targeted at specific ages but this needs to be “objectively justified” by evidence
- provide a specialist stroke service for patients of all ages with access based on need and not age.

The national guidance on the treatment of heart attacks notes that, from April 2008, all acute NHS trusts are required to use the Standard NHS Contract for acute services for their agreements with PCTs. This includes a requirement not to discriminate between patients on the grounds of gender, age, ethnicity, disability, religion, sexual orientation or any other non-medical characteristics and to provide appropriate assistance for patients who do not speak, read or write English or who have communication difficulties.⁵⁸⁰

⁵⁸⁰ *Treatment of Heart Attack National Guidance, Final Report of the National Infarct Angioplasty Project (NIAP)*, Department of Health, 2008

18.5 Case studies of illustrative / good practice

Reviewing the stroke pathway - NHS South West

NHS South West is the best for achievement of stroke targets – probably due to its clinically-led peer review exercise in 2008, which covered the entire stroke pathway in every PCT and involved baseline assessments, site visits and meetings with commissioners and providers.

The context for reviewing the stroke pathway was the *National Stroke Strategy for England* (December 2007), which set out a ten-year plan designed to make stroke services among the best in the world, and includes 20 quality markers. The South West Strategic Health Authority set a three-year goal for delivery of the strategy and commissioned a detailed, clinically-led peer review of stroke services. Its aim was to provide a structured, accurate and credible baseline evaluation of the stroke pathway in each of the 14 health communities, to enable PCTs to commission changes to meet the requirements of the framework of quality markers.

The review produced detailed information on stroke services which has been incorporated into three-year PCT action plans to commission new services consistent with the ambitions within the Stroke Strategy. These action plans are monitored regularly by the Strategic Health Authority and will be reviewed on an annual basis by a clinical team over each of the next three years.

At the time of the review in NHS South West, none of the other nine strategic health authorities in England had undertaken a systematic peer review of their entire stroke care pathway. However, it is clear that reviewing the whole pathway – and not just the acute services part of it – is hugely beneficial in raising awareness of stroke and how to commission and provide the best possible services to treat people who have strokes.

Although strokes can occur in younger people, 80 per cent of those who suffer strokes are over the age of 65, and the average age for suffering a first stroke is 74.⁵⁸¹ Therefore undertaking this kind of review can provide a firm foundation for the provision of high quality, age-appropriate services.

Further information

Dr Damian Jenkinson

damian.jenkinson@improvement.nhs.uk

⁵⁸¹ *Population-based study of event-rate, incidence, case fatality, and mortality for all acute vascular events in all arterial territories, Oxford Vascular Study, Rothwell P M, Coull A J, Silver L E, Fairhead J F et al. The Lancet, London: 19 November, 2005. Vol. 366, Iss. 9499; pg. 1773, 11 pgs*

Reviewing the stroke pathway East Lancs PCT and local hospitals

East Lancs PCT and local hospitals (ELHT) have developed a joint mechanism for the care of stroke patients across the whole journey pathway from secondary to primary care. A protocol has been developed for the transfer of care from the acute sector following a stroke, to care of stroke patients in the community by a multidisciplinary team led by consultant community geriatricians. The mechanism and proforma devised ensures a seamless transfer of care and information.

In addition, through the maintenance of a stroke register, every stroke patient discharged from the hospital has a six-month multidisciplinary and consultant follow-up in the community, leading to maximising the rehabilitation potential and prevention of further risk, and secondary prevention. This is an example of multi-agency (health, social and voluntary bodies) joint-working to provide care across the whole journey pathway for people who have had a stroke.

Further information

Professor I Singh, Consultant Physician in Medicine for Older People
NHS East Lancashire

Iqbalsingh21@aol.com or paula.stott@eastlancspct.nhs.uk

01254 282571

or

Dr N A Roberts, Consultant Physician in Medicine for the Elderly
East Lancs Hospital Trust

nicholas.roberts@elht.nhs.uk

01254 263555

18.6 Suggestions for quick wins / what you can do now

- Work with local older people's organisations to raise awareness of CVD risk factors and treatment options and to plan and evaluate local services.
- Review local pathways for the treatment of CVD (including strokes) with an explicit consideration of meeting the needs of people of all ages.
- Audit use of CVD services and procedures by age, gender and ethnicity and discuss the results with older people's groups.
- Audit access to specialist stroke services by age group, to ensure that services are not discriminating against any particular age group and discuss the results with older people's groups.
- For stroke units - how does your local unit rate on the Royal College of Physicians' *National Sentinel Stroke Audit*?