Accelerating Stroke Improvement
National Plan

Background and strategic outline of work for 2010/11
Foreword

The Accelerating Stroke Improvement programme is a national initiative designed to ensure that maximum implementation of the Quality Markers in the National Stroke Strategy is achieved before the end of the financial year 2010/11. The programme does not redefine existing ambitions and goals, but does provide renewed emphasis and urgency, and values and spreads best practice accomplished to date.

Accelerating Stroke Improvement will provide intensive whole-system support to services to accelerate implementation of the strategy during 2010/11, with the aim of achieving key ‘milestones’ in care across the stroke pathway covering prevention, acute and long-term care and better joint working across the health and social care interface. The methods will combine the efforts and activities of stroke networks, the Stroke Improvement Programme and the Department of Health to mobilise local improvement initiatives, supported by SHA, PCT and trust senior management.

There is another one year with stroke as a confirmed national priority, and the Accelerating Stroke Improvement programme is designed to make the very best use of this opportunity. This will also provide a firmer grounding for work beyond 2010/11.

This document is intended to outline the background to, and describe the key components of, the Accelerating Stroke Improvement initiative. The information is intended to compliment the briefing materials and guidance published on the Stroke Improvement Programme website.

For more information, guidance and useful resources, please see the Accelerating Stroke Improvement section of the Stroke Improvement Programme web site at: www.improvement.nhs.uk/stroke

Dr Damian Jenkinson
National Clinical Lead
NHS Stroke Improvement Programme

July 2010
Contents

1. Introduction - why the *Accelerating Stroke Improvement* programme? 4

2. Building blocks of *Accelerating Stroke Improvement* 5
   2.1 QIPP 5
   2.2 Main areas of work 5
   2.3 How to measure progress 7
   2.4 Engagement 8

3. Delivering the *Accelerating Stroke Improvement* programme – what it will require 10
   3.1 Events to support the programme 10
   3.2 Critical enablers for delivery 12

4. Timetable 15

Appendices
   A: Definitions of measures 16
   B: Data flows 22
   C: Governance framework 23
1. Introduction – why the Accelerating Stroke Improvement programme?

The National Stroke Strategy was launched in December 2007. It provides a national quality framework through which local services can, over a ten year period, secure improvements across the stroke pathway against quality markers. To support implementation of the strategy, alongside additional funding made available in PCT baselines, three years of central funding has been available to kick start improvements across health and social care.

A tremendous amount of progress has been made since publication of the strategy. The national support team, the Stroke Improvement Programme (SIP), and 28 local stroke care networks are now in place. The recently published National Audit Office (NAO) report and subsequent Public Accounts Committee (PAC) hearing and report has also noted the improvements that have been made. Both found that since the publication of the stroke strategy:

- good progress has been made on awareness raising of stroke and improving services in acute care but there is more to be done;
- more effort is needed on prevention and, in particular, in the detection and treatment of atrial fibrillation (AF);
- much remains to be done to tackle the long term care issues associated with stroke.

The PAC commended the rate of change in the acute parts of the pathway, but they also demanded a clear commitment promptly to address the outstanding needs. At the hearing, Sir David Nicholson, Chief Executive of the NHS and Accountable Officer, and Professor Roger Boyle, National Director for Heart Disease and Stroke, at the Department of Health (DH), pledged health and social care prioritisation of the work.

In the current financial climate, it is likely that for the foreseeable future there will be downward pressure on spending, both in the NHS and in social care. Quality, Innovation and Productivity (QIPP) is the principal lever for helping to ensure that each pound spent is focused on maximising the quality of health care we provide and on improving the experience of patients and the public. Building on the existing momentum in the system, including the NAO and PAC reports, to improve stroke care, this current year provides an excellent opportunity to prepare for the years ahead by focusing on quality and identifying efficiency savings across stroke services and developing and putting in place plans to maintain and sustain the improvement of stroke services across the whole pathway.

Taking these elements together, we have reached a key point in the delivery of the National Stroke Strategy. Systems, structures and funding are in place to provide leadership, guidance and support a programme of work to go further, faster in improving stroke services this year called Accelerating Stroke Improvement. Accelerating Stroke Improvement is about systematically:

- taking stock of what has been achieved so far in improving stroke services;
- assessing what else needs to be addressed, including long term care;
- building on existing plans, mapping out what can be achieved this year with the support and tools available and how this can be sustained into the future so that everyone gets the right treatment, in the right place, at the right time.
2. Building blocks of *Accelerating Stroke Improvement*

There are four key building blocks this programme:

- QIPP
- Main areas of work
- How to measure progress
- Engagement

2.1 Quality, Innovation, Productivity and Prevention - QIPP

The QIPP agenda - the drive to improve productivity within the NHS, initiated by Sir David Nicholson and led by Jim Easton - sets the context for all initiatives currently taking place. The *Accelerating Stroke Improvement* programme offers an excellent strategic fit with the QIPP agenda. The Stroke Improvement Programme is currently building an evidence base of case studies and useful learning on service improvements across the whole pathway which will support QIPP through, for example, improvements that reduce length of stay, stroke prevention, and other work which protects and promotes quality while releasing savings. *Accelerating Stroke Improvement* ties in particularly with the QIPP workstreams on urgent and emergency care, and on long-term conditions. Both of these are led by Sir John Oldham, who has suggested tying in *Accelerating Stroke Improvement* work with the long term conditions workstream where there is a particularly close link in relation to care planning (see below).

2.2 Main areas of work

The aim of *Accelerating Stroke Improvement* is to accelerate improvement of services across the whole pathway of stroke and TIA care, reflecting all 20 quality markers in the strategy.

Each health and social care economy (covered by a network) needs to have a clear view of its own position in terms of progress towards delivering a consistently high quality service across the whole pathway. Objectives must be prioritised and tackled systematically. *Accelerating Stroke Improvement* has been designed to help commissioners and providers work together to determine the best way of making progress locally. Work on stroke falls naturally into three domains:

- prevention;
- acute care;
- post-hospital and long-term care.

Working with stroke network directors and clinical leads, we have identified nine key indicators, set out in the table below, to act as signals of how well any health and social care economy is doing overall in attaining the goal of high quality services across the pathway.
<table>
<thead>
<tr>
<th>Domains</th>
<th>Joining up prevention</th>
<th>Implementing best practice in acute care</th>
<th>Improving post hospital and long term care</th>
</tr>
</thead>
</table>
| Key areas of focus | • AF detection  
• Timely and effective management of TIA                                                  | • Direct admission to a stroke unit  
• Time on a stroke unit  
• Timely brain scan                                                   | • Early supported discharge (ESD)  
• Joint care planning  
• Review at 6/12  
• Psychological Support                                                   |

It is important to recognise that these are not in any way ‘new targets’ for the NHS. All nine link directly to quality makers in the National Stroke Strategy. Two can already be measured by the existing Tier 1 Vital Sign on stroke. The remainder represent a balance between the need to track progress and what can be collected using existing information systems. Networks will already be working on at least some of these nine areas in their existing plans.

The nine indicators across three domains aim to embed a whole pathway approach and assist commissioners and providers in ensuring they have well-balanced forward plans. There is particular emphasis on the post hospital and long-term care part of the pathway, taking up four of the nine indicators, as the NAO and PAC have indicated this is where progress has been slowest. It is widely accepted to be the most difficult area to tackle and one of the key problems is the relative lack of data in comparison with the acute section of the pathway.

The first two years of National Stroke Strategy implementation have seen very good progress with the establishment of networks and major improvements in the acute services. In this third year, the emphasis must shift to the long term support end of the pathway – in line with the QIPP agenda. The Stroke Improvement Programme will provide tools and distil experience of effective approaches in tackling long term care issues to the NHS and social care as the year progresses.
2.3 How to measure progress

Using data is a fundamental component of improvement work, as it demonstrates change is being made. The *Accelerating Stroke Improvement* measures will enable a baseline assessment to be made, give an indication of the overall state of stroke pathway and allow networks to track progress.

<table>
<thead>
<tr>
<th>Area of work</th>
<th>Measure</th>
<th>Aim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrial fibrillation detection and treatment</td>
<td>Proportion of patients presenting with stroke with AF anti-coagulated on discharge</td>
<td>60% by April 2011</td>
</tr>
<tr>
<td>Timely and effective management of TIA</td>
<td>Proportion of high risk TIA patients investigated and treated within 24 hours of first contact with a health professional</td>
<td>60% by April 2011</td>
</tr>
<tr>
<td>Direct admission to a stroke unit</td>
<td>Proportion of patients admitted directly to an acute stroke unit within 4 hours of hospital arrival</td>
<td>90% by April 2011</td>
</tr>
<tr>
<td>Acute stroke care</td>
<td>Proportion of patients spending 90% of their stay on a stroke unit</td>
<td>80% by April 2011</td>
</tr>
<tr>
<td>Access to brain imaging</td>
<td>Proportion of stroke patients scanned within one hour of hospital arrival</td>
<td>50% by April 2011</td>
</tr>
<tr>
<td>Access to and availability of ESD services</td>
<td>Presence of a stroke skilled early supported discharge team</td>
<td>40% by April 2011</td>
</tr>
<tr>
<td>Joint health and social care management</td>
<td>Proportion of patients and carers with joint care plans on discharge from hospital</td>
<td>85% by April 2011</td>
</tr>
<tr>
<td>Assessment and review</td>
<td>Proportion of stroke patients that are reviewed six months after leaving hospital</td>
<td>95% by April 2011</td>
</tr>
<tr>
<td>Timely access to psychological support</td>
<td>Proportion of patients who have received psychological support for mood, behaviour or cognitive disturbance by six months after stroke</td>
<td>40% by April 2011</td>
</tr>
</tbody>
</table>

These measures are challenging but reflect the ambition to go further, faster this year in accelerating improvements in stroke services. They are defined in more detail in appendix A, along with a description of the data flows. An Excel spread sheet produced by the Stroke Improvement Programme will facilitate data collection and tracking progress. A ‘frequently asked questions’ resource has also been produced by the Stroke Improvement Programme and is available on the web site.

Apart from the Vital Signs, all other data will be reported at provider level, supported by networks, and tracked by SHAs.
2.4 Engagement

The genuine engagement of all those who work with stroke survivors in health and social care, as well as in relevant third sector and non-statutory providers, will be essential to the success of the *Accelerating Stroke Improvement* programme where there is a close link in relation to care planning.

The following provides an overview of the necessary steps and processes at different system levels:

**Trust level**
- Senior management informed and actively involved
- Active work on system barriers (e.g. bed management)
- Addressing ‘meso’ level challenges (e.g. scanning)
- Supported by:
  - clear statement of needs by clinical teams
  - designated executive leadership
  - Network coordination and comparison
  - performance focus by Network/SHA

**PCT/Local Authority level**
- Support for local aims – buy in at executive level
- Commitment to commission
- Active links between PCTs & LAS
- Supported by:
  - Network advisory role
  - active relationship with clinical leads
  - advice from patients and patient groups

**Network level**
- Coordinating and supporting work within & between Trusts
- Supervising data collection and analysis
- Liaison/brokering between PCTs and Trusts
- Addressing pathway level challenges (e.g. telemedicine)
- Supported by:
  - guidance and evidence from SIP
  - SHA backing for whole system projects
  - providing independent and constructive challenge

**Clinical team level**
- Whole team informed and involved
- Clear aim for improvement work (see local events)
- System of measurement
- Supported by:
  - development of local leadership
  - effective use of data
  - training in improvement tools
  - SIP ‘how to...’ guides
  - practical help by local support workers
  - permission and encouragement by management

**SHA level**
- Coordinate overall plan
- Forum for supporting chief executives
- Monitors overall performance
- Liaison with SIP/DH

While the overall aims of the programme are constant, the operational aspects will vary from network to network, adapted to fit the needs and disposition of services in each area and plans that are currently in place. The suggested framework for local activity is intended to reflect and enhance existing plans and methods.
The *Accelerating Stroke Improvement* work will be led by the SHA (with an executive sponsor at board level) and networks, with executive support in each trust and PCT. Each SHA stroke lead and the regional network directors will work in partnership to support the development and delivery of locally designed improvement plans.

Individuals to lead change within organisations should be identified, and high-performing services recruited to support other services. Building commitment to lead and track change across sections of the pathway, or within individual services, will provide a useful focus and support for individuals and services.

As outlined in the National Stroke Strategy, there are lessons that can be learned from cardiac service improvement, both in terms of priority and position of strokes services within organisations. For example, bed management policies within a trust recognise the need for coronary care unit specialist care to be available as a priority to heart attack patients; the same benefits to patients will be seen if this is mirrored exactly in acute stroke unit services.
3. Delivering the *Accelerating Stroke Improvement* programme – what it will require

Local and regional events will play a critical role in providing the time and space for those commissioning and delivering stroke services to work together on some of the most difficult issues in their area and put in place jointly agreed plans on how these will be tackled.

3.1 Events to support the programme

The Stroke Improvement Programme has designed a systematic approach, following discussions with network leads, using learning events for those involved in the provision and delivery of stroke care across the pathway, spaced throughout the year. The main elements of this approach will be:

- joint identification of issues inhibiting improvement activity;
- jointly developed and designed action plans;
- tracking improvements from the baseline assessment;
- sharing of good practice - learning and sharing of what works, and what doesn’t;
- support and training on improvement.

As highlighted in the letter of 31st March from Sir David Nicholson and Professor Roger Boyle to SHA Chief Executives, SHAs, working with their stroke networks, have been asked to arrange at least three events in 2011/12 as part of this programme. These are described in more detail below:

**(A) Initial Event**, at SHA level, taking place across the country in May/June 2010, to introduce the *Accelerating Stroke Improvement* programme to those managing and working across stroke care. The Stroke Improvement Programme will work with each SHA and its...
associated networks to support these events. Both Professor Roger Boyle, National Director for Stroke and Dr Damian Jenkinson, National Clinical Lead for the Stroke Improvement Programme will be available to speak.

The **aim** of this event is to:

- give senior managers, both in local authorities and the NHS, a chance to actively participate in and show commitment to *Accelerating Stroke Improvement*;
- to work together as a team to problem solve the two key issues identified beforehand (one must be a long term support issue) using baseline information from a pack to be provided prior to the event;
- to produce an action plan (or revise an existing one) for delivering improvements on the two agreed issues in 2010/11 and be prepared to report on progress at the following event.

The **programme** for this event:

- a plenary presentation by Professor Boyle or Dr Jenkinson outlining the strategic context and the work ahead;
- a short presentation by a SHA director whose responsibilities cover stroke giving the regional picture covering any local issues, for example, reconfiguration;
- a problem solving session to work on the two key issues identified using the baseline assessment;
- an action planning session on how to take forward two key issues identified.

The **audience** for the event should consist of senior representation from across the SHA region, including those in PCTs, local authorities, provider trusts, ambulance trusts, community services and relevant organisations in the third sector. To ensure the best possible turnout of senior management, the date chosen should coincide with one of the regular meetings between the SHA and PCT chief executives.

**Support for the event.** Customised packs for each network, including information at PCT and trust level, will be provided prior to the event. These will include data from Hospital Episode Statistics, the Vital Sign, Care Quality Commission, and the Qualities and Outcomes Framework, as well as other materials from the Stroke Improvement Programme, toolkits (e.g. the GRASP atrial fibrillation tool, ASSET). Together, these will enable individual stroke networks, with local authority colleagues, to sharpen their focus, intensify their efforts on improving some of their most challenged stroke services and build on and develop well informed action plans for local service improvement. Stroke Improvement Programme team members will also be available on the day to support discussion and identify key factors to help services develop and improve, including sharing learning from national improvement projects and successful services.

To get the best out of the day, each local team attending should do some preparatory work, in particular to identify which key issues they wish to work on at the event.
(B) **Two further events** - one in October/November and one in January/February.

The **aim** of these events is to:

- take stock and compare progress;
- share and celebrate successes;
- problem solve some of the challenging issues inhibiting progress.

The **audience** will be the same as for the initial events. **Support** will be available from both the Department of Health and the Stroke Improvement Programme. To ensure the best possible attendance, the date chosen should coincide with one of the regular meetings between the SHA and PCT chief executives.

### 3.2 Critical enablers for delivery

The diagram below illustrates the critical enablers needed for successful delivery of the *Accelerating Stroke Improvement* programme.
**Enhanced Leadership**

Enhanced leadership in stroke will be provided in three ways.

a) Twenty Stroke Improvement Programme associates - people with special experience in implementation of stroke care at points along the care pathway who will visit sites, advise and support service change, coordinated through the Stroke Improvement Programme. This will include support from diagnostics and radiology experts from other NHS Improvement teams.

b) A clinical lead for each of the three major domains *Joining Up Prevention, Implementing Best Practice in Acute Care, and Improving Post Hospital and Long Term Care* will be appointed to steer work at a national level.

c) Each SHA will have a stroke lead who will, with their network director colleagues, have regular meetings with the Stroke Improvement Programme and attend national and local meetings in the *Accelerating Stroke Improvement* programme.

**Common Goals and Measures**

These are described in detail in the appendix.

**Spreading Good Practice**

The Stroke Improvement Programme work is already under way to develop resources and guidance that share learning on what works as well as best practice. This will be spread through a range of methods, including:

- the website and e-bulletin;
- emerging leaders for stroke;
- focused support at individual sites;
- national meetings and learning events – as with the initial events, these will be shaped in consultation with networks and SHA stroke leads.

The Stroke Improvement Programme will share improvement strategies and key learning for main areas of stroke and TIA care. In June 2010, the learning from the 58 peer-supported national priority projects will be available in a ‘how to.’ guide for critical areas of the stroke pathway.

Further education events will be considered, building on the success of Stroke Improvement Programme events to date. These will target specific challenges that teams are facing (including those identified from the SHA action plans) and focused on those teams requiring help and support.

**Focused Support**

The Stroke Improvement Programme will provide support through visits by clinical and improvement leads and associates to assist in problem solving to enable service change. Tailored to individual circumstances and negotiated via the Stroke Improvement Programme national team, this will include:

- responding to challenged services and may extend to whole system solutions along stroke care pathways;
• undertaking ‘diagnostic’ visits to provide external perspective and advice on development issues;
• guidance on, and tools for, measurement of progress of accelerated improvement work.

**National Solutions – straightforward answers to common problems**

The Stroke Improvement Programme is working with other national organisations, including the Department of Health, the National Quality Board stroke sub-group, the Care Quality Commission, Royal Colleges, the Stroke Research Network and the Collaboration for Leadership in Applied Health Research and Care (CLAHRC) to provide a range of materials, mostly in the form of toolkits, to help address common problems and issues. These will include
• commissioning early supported discharge services;
• regular six week and six month follow-up reviews;
• psychological assessment;
• seven day working;
• governance framework for telemedicine.

Other relevant national initiatives, such as ongoing work on long-term conditions, the Interim Management and Support (IMAS) programme and the national focus on QIPP will be linked to *Accelerating Stroke Improvement*.

**Other priorities**

The Stroke Improvement Programme is undertaking work to support service development in the following areas as recommended by the National Audit Office report on stroke services:
• defining, and providing examples of, high-quality information for stroke survivors;
• developing standards for community-based rehabilitation;
• developing key performance indicators for long-term stroke care, and providing commissioning;
• work with SHAs and PCTs to improve management of atrial fibrillation.

These pieces of work, requiring longer timescales to be fully realised, will form a continued theme of work for the Stroke Improvement Programme. They will provide useful learning as piloting work is undertaken this year, and be informed and supported in the longer term by the achievements of *Accelerating Stroke Improvement*.

The Committee of Public Accounts requires the Department of Health to report back to them in 12 months (March 2011) on:
• achieving the Vital Sign threshold of 80% of patients spending 90% of their time on a stroke unit;
• increased use of Early Supported Discharge arrangements.
4. Timetable

The key dates for the *Accelerating Stroke Improvement* programme are:

<table>
<thead>
<tr>
<th>SHA Initial events</th>
<th>Further SHA/Network events</th>
<th>Further SHA/Network events</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 10</td>
<td>Oct 10</td>
<td>Jan 11</td>
</tr>
<tr>
<td>Jun 10</td>
<td>Nov 10</td>
<td>Feb 11</td>
</tr>
<tr>
<td>Jul 10</td>
<td>Dec 10</td>
<td>Mar 11</td>
</tr>
<tr>
<td>Aug 10</td>
<td></td>
<td>Apr 11</td>
</tr>
<tr>
<td>Sep 10</td>
<td></td>
<td>May 11</td>
</tr>
<tr>
<td>Mid-year Stocktake</td>
<td></td>
<td>ASI Final National Event</td>
</tr>
<tr>
<td>Reference Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National ASI ‘launch’ Event</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHA Initial events</td>
<td>Further SHA/Network events</td>
<td>Further SHA/Network events</td>
</tr>
<tr>
<td>May 10</td>
<td>Oct 10</td>
<td>Jan 11</td>
</tr>
<tr>
<td>Jun 10</td>
<td>Nov 10</td>
<td>Feb 11</td>
</tr>
<tr>
<td>Jul 10</td>
<td>Dec 10</td>
<td>Mar 11</td>
</tr>
<tr>
<td>Aug 10</td>
<td></td>
<td>Apr 11</td>
</tr>
<tr>
<td>Sep 10</td>
<td></td>
<td>May 11</td>
</tr>
<tr>
<td>Mid-year Stocktake</td>
<td></td>
<td>ASI Final National Event</td>
</tr>
<tr>
<td>Reference Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National ASI ‘launch’ Event</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendices

#### A: Definitions of measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Definition</th>
</tr>
</thead>
</table>
| Proportion of patients presenting with stroke with AF anti-coagulated on discharge (60% by April 2011) | This measure refers to secondary prevention.  
Proportion of patients presenting with new stroke with atrial fibrillation who are discharged on anticoagulation.  
Denominator: number of patients admitted with a stroke also with atrial fibrillation (newly diagnosed on this admission or previously diagnosed)  
Numerator: the number of these patients who were discharged on anticoagulation or who had a plan for anticoagulation to start, when clinically appropriate, in the discharge letter or medical notes.  
Record the number of patients admitted with confirmed stroke with atrial fibrillation.  
Record the number of patients who are discharged on anticoagulation and the number who have a plan for anticoagulation to start in the next month in the discharge letter.  
Tolerance: the metric has already taken into account the proportion likely to be excluded i.e. patients in whom anticoagulation is contraindicated or who decline.  
Anticoagulation refers to treatment with an anticoagulant such as Warfarin and not an antiplatelet such as Aspirin or Clopidogrel. |
| Proportion of high risk TIA patients investigated and treated within 24 hours of first contact with a health professional (60% by April 2011) | Definition and guidance as the DH VSMR guidance  
Other guidance as DH FAQs.                                                                                                                                                                                  |
| Proportion of patients admitted directly to an acute stroke unit within 4 hours of hospital arrival (90% by April 2011) | Denominator: number of patients with confirmed stroke.  
Numerator: number of patients with confirmed stroke in an acute stroke unit bed at 4 hours after arrival at hospital.                                                                                   |
For each patient with confirmed stroke record date and time patient arrived in hospital and date and time patient arrived in a designated stroke bed.

Directly: in this context means that the patient goes straight to the acute stroke unit without spending time on another ward including assessment units. The metric allows for up to four hours to be spent in the Emergency Room/Accident and Emergency or in the imaging department en route to the stroke unit.

Tolerance: the 10% tolerance allows for patients in whom stroke diagnosis is delayed due to atypical presentation, those who are FAST and ROSIER negative, and those patients appropriately directly admitted to ITU/CCU/tertiary centre.

Exceptions: exclude from the denominator patients who have a stroke whilst in hospital.

<table>
<thead>
<tr>
<th>Proportion of patients spending 90% of their stay on a stroke ward (80% by April 2011)</th>
<th>Definition and guidance as the DH VSMR guidance. Other guidance as DH FAQs.</th>
</tr>
</thead>
</table>

i) Proportion of stroke patients scanned within one hour of hospital arrival (50% by April 2011)

<table>
<thead>
<tr>
<th>Proportion of stroke patients scanned within one hour of hospital arrival (50% by April 2011)</th>
<th>Needs to be collected as two metrics; one for patients who require immediate imaging (i) and one for patients who do not (ii).</th>
</tr>
</thead>
</table>

i) Proportion of patients scanned within one hour of hospital arrival.
Denominator: number of patients admitted with acute stroke
Numerator: number of these patients who are imaged within one hour of hospital arrival (see criteria for urgent imaging).

ii) Proportion of patients scanned within 24 hours of hospital arrival.
Denominator: number of patients admitted with acute stroke as i) above.
Numerator: number of these patients imaged within 24 hours of arrival (this number will include those scanned within one hour).

Record number of patients admitted with stroke. Record the date and time of admission. Record date and time of first brain imaging.

Exceptions: exclude patients not scanned or had a delayed scan for clinical reasons and patients who declined.
### NICE recommendations for imaging

**i)** Brain imaging should be performed immediately for people with acute stroke if any of the following apply:

- indications for thrombolysis or early anticoagulation treatment
- on anticoagulant treatment
- a known bleeding tendency
- a depressed level of consciousness (Glasgow Coma Score below 13)
- unexplained progressive or fluctuating symptoms
- papilloedema, neck stiffness or fever
- severe headache at onset of stroke symptoms

‘Immediately’ is defined as ‘ideally the next slot and definitely within 1 hour, whichever is sooner’, in line with the National Stroke Strategy.

**ii)** For all people with acute stroke without indications for immediate brain imaging, scanning should be performed as soon as possible.

‘As soon as possible’ is defined as ‘within a maximum of 24 hours after onset of symptoms’.

### i) Presence of a stroke skilled Early Supported Discharge team

### ii) Proportion of patients supported by a stroke skilled Early Supported Discharge team (40% by April 2011)

- **Proportion of patients supported by an Early Supported Discharge team**
  - Denominator: number of stroke patients discharged alive
  - Numerator: number of patients discharged with a plan to be seen and managed by the ESD team.

Tolerance: the metric has already taken into account the proportions for whom ESD would not apply such as individuals who are eligible but who decline or who reside outside the UK and those not eligible for clinical reasons.

The availability or otherwise of an Early Supported Discharge team is not a reason to exclude patients from the denominator.

Stroke skilled. The RCP definition of specialist stroke team applies in this instance.

'A specialist team or service is defined as a group of specialists who work together regularly managing people with a particular group of problems (stroke) and who between them have the knowledge and skills to assess and resolve the majority of problems. At a minimum any specialist team or service must be able to fulfil all the relevant recommendations made in the RCP National Clinical Guidelines 2008...The team does not have to manage stroke exclusively, but should have specific experience of and knowledge about people with stroke.' The spirit of this guidance is that individuals should be managed by stroke specific or neurological rehabilitation teams to whom appropriate stroke patients in a particular area are referred, but not by generic teams who also manage patients with non-neurological conditions as well as stroke and neurology.
Early supported discharge service: a comprehensive stroke skilled multidisciplinary team who manage patients at their place of residence and who are able to provide rehabilitation of similar intensity to that of a stroke unit. Composition of the team would usually include a coordinator/manager, physiotherapist, occupational therapist, speech and language therapist with support from nursing and social care. Eligibility for ESD: no clinical guidance is yet available but review of the literature and of existing services refers to eligible patients as those able to carry out a functional transfer safely with one, if living with an able carer, or independently if living alone, has a moderate disability (initial Barthel more than 9), and is able to manage other problems safely at home. Patients to be included will be those whom in the opinion of the multidisciplinary team will benefit from early discharge from hospital supported by therapy at home. It would not be appropriate to include patients with no functional deficit, or those who have had a prolonged inpatient stay. include patients discharged to services which carry out the functions of an ESD service as described above but who have a different name - assisted or supported discharge team for example. An ESD service should be one component of a stroke specific community rehabilitation service available to stroke survivors on hospital discharge.

Proportion of patients and carers with joint care plans on discharge from hospital (85% by April 2011)

Denominator: number of stroke patients discharged alive
Numerator: number of these patients (or their carers) who have a copy of their joint care plan on discharge from hospital.

Joint care plan: documented evidence of an assessment and management plan which takes into account the patients and carers health and social care needs. The content of the care plan should be jointly decided by both health and social care staff.

Exceptions: exclude patients who have no documented health or social care needs, patients not resident in the UK and patients who refuse a health/social care assessment or intervention.

Tolerance: allowance has been made for individuals for whom it would not be appropriate to share sensitive information and those for whom the information would be incomprehensible.
| Proportion of stroke patients that are reviewed six months after leaving hospital (95% by April 2011) | Number of stroke patients reviewed at 6 months post hospital discharge  

Denominator: number of people with stroke discharged alive who are still alive at 6 months.  
Numerator: number of stroke patients reviewed at 6 months post hospital discharge.  
Review: should be a multifaceted assessment of need and should encompass the individuals:  
• Medicines/General Health needs  
• Ongoing therapy and rehabilitation needs  
• Mood, memory cognitive and psychological status  
• Social care needs, carer wellbeing, finances and benefits, driving, travel and transport.  
A review which included only stroke secondary prevention would not be considered to be acceptable.  
Reviews could be carried out in a primary care setting, and could be carried out by social care, however the model of service delivery will need to be decided locally as long as the content of the review is a multifaceted assessment of need.  
Exceptions: exclude patients who have died, patients who decline the review or patients who live out of the area. The review should be offered to all stroke survivors even those who may not appear to have residual impairment.  
Tolerance: it is acceptable for the six month review to take place between five and seven months post discharge |
|---|---|
| Proportion of patients who have received psychological support for mood, behaviour or cognitive disturbance by six months after stroke. (40 % by April 2011) | Denominator: number of patients with stroke, alive at 6 months post stroke.  
Numerator: number of patients who have been seen (assessed and/or treated) by a service providing psychological support capable of managing mood, behaviour or cognitive disturbance by six months post stroke.  
Service providing psychological support for mood, behaviour or cognitive disturbance: this service should be capable of assessing and managing individuals with mood, behaviour and cognitive disturbance and should comprise staff with special expertise and competence in assessing, treating and monitoring people with these needs eg clinical psychologist, psychiatrist, primary care mental health worker or be stroke specialists with additional expertise in managing people with these needs eg stroke specialist counsellor, stroke specialist practitioner eg occupational therapist.  
Mood, behaviour or cognitive disturbance might include |
<table>
<thead>
<tr>
<th>anxiety, emotionalism, depression, denial and difficulty coping emotionally and psychologically with the stroke which impedes recovery, problems with orientation and memory and inappropriate behaviour.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceptions: exclude patients who have died, patients who decline the assessment/intervention.</td>
</tr>
<tr>
<td>Tolerance: 40% reflects evidence of likely numbers of individuals post stroke who could be expected to have problems with mood, behaviour and cognition.</td>
</tr>
</tbody>
</table>
B: Data flows

SHAs and stroke networks, with the guidance of the Stroke Improvement Programme, will assist individual services to collect information on the above measures on a monthly basis from May 2010.

Each network will identify areas of good and poor progress, and target resources and support appropriately. Aggregating this data into PCT and network groups will help to identify themes and challenges to inform service planning and support. Tracking progress through the review of the measures will underpin discussion on strategy and practical support for PCTs within each network.

The data will be shared to present a national picture of progress and to highlight areas for further work.
C: Governance framework

The following chart illustrates the governance and working relationships between the various parties involved in the *Accelerating Stroke Improvement* programme.

The functions and responsibilities of the various parties are outlined below:

**Vascular Programme Board**

Regular reports to the Vascular Programme Board will be provided to link to the formal governance arrangements in the Department of Health.

**Accelerating Stroke Improvement Steering Group**

The main coordinating body of *Accelerating Stroke Improvement* is the steering group, comprising members of the Department of Health Vascular Team, NHS Improvement, and a nominated network representative:

**Department of Health**
- National Director for Heart Disease and Stroke
- Branch Head, Vascular Programme
- Deputy Branch Head, Vascular Programme
- Stroke Programme Manager
The group will meet regularly, initially every two weeks, with quarterly review meetings to take stock of progress and challenges. Additional meetings will be organised as required.

**Accelerating Stroke Improvement Reference Group**

To ensure key individuals and organisations are aware and supportive of the *Accelerating Stroke Improvement* initiative, key stakeholders from stroke and TIA services and national bodies with a specific interest in this area will be invited to attend two meetings to:
- identify local and national work that may contribute to *Accelerating Stroke Improvement*, or have a direct influence on progress and achievement;
- ensure that the aims and activities within *Accelerating Stroke Improvement* are linked to the ‘real world’ of service provision and development;
- suggest avenues to explore that may enhance or improve *Accelerating Stroke Improvement*.

The initial meeting will be held in July, with a further meeting in November to review work to date and highlight key areas and issues for the remainder of 2010/11.

**Role of NHS Improvement**

NHS Improvement, through both the Stroke Improvement Programme and representatives from the Diagnostics Programme, will support and facilitate the *Accelerating Stroke Improvement* programme. Progress will be reviewed and monitored through the *Accelerating Stroke Improvement* Steering Group, and direction given to developing work.

The Stroke Improvement Programme will establish formal communication links with each network and SHA. National improvement leads will have regular contact with each SHA and the associated networks to maintain engagement, support strategy and planning, identify common themes and problems and link to practical assistance and guidance where necessary.

The Stroke Improvement Programme will support the measurement and progress tracking system giving guidance where appropriate. It will receive collated measures from each SHA and aggregate them into a national picture. The programme will also offer support, where required, to individual networks and services.

**Role of SHAs and Stroke Care Networks**

SHAs and networks will together lead the local delivery of *Accelerating Stroke Improvement*, including supporting improvement work, identifying clinical and managerial champions,
channelling funding appropriately to *Accelerating Stroke Improvement* initiatives, and collecting measures from organisations in the region.

SHAs and Networks will liaise with the Stroke Improvement Programme team and, through the regular network directors and clinical leads meetings, identify problems and themes that may require additional national support or intervention.

SHAs will be responsible for arranging the initial event in May/June 2010, and subsequent local events to support the initiative.