Royal College of Physicians | Sentinel Stroke National Audit Programme (SSNAP)

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Acute organisational audit report

November 2012

Generic Report

Prepared by

Royal College of Physicians, Clinical Effectiveness and Evaluation Unit on behalf of the Intercollegiate Stroke Working Party

Acute organisational audit

Document purpose	To disseminate the site level results of the SSNAP acute organisational audit 2012
Title	SSNAP Acute Organisational Audit Report 2012
Author	On behalf of the Intercollegiate Stroke Working Party
Publication	November 2012
Target audience	Multidisciplinary stroke teams, managers, medical directors and trust executives of sites that participated in the 2012 SSNAP organisational audit
Description	This is the first report published under the auspices of the new Sentinel Stroke National Audit Programme. It provides continuity from the previous 7 biennial rounds of the National Sentinel Stroke Organisational Audit. This report includes all data submitted by sites via a web based tool between 23 July and 31 August 2012. The results reflect the organisation of stroke services as of 2 July 2012. This report contains national and site level figures to allow benchmarking of performance, changes over time, and regional comparisons.
Superseded	National Sentinel Stroke Audit – Organisational Report (2010, 2009, 2008, 2006, 2004)
Related publications	National clinical guideline for stroke 4th edition (Royal College of Physicians, 2012) http://www.rcplondon.ac.uk/resources/stroke-guidelines SINAP Comprehensive report –March 2012 www.rcplondon.ac.uk/sinap SINAP 6th Quarterly Public Report – July – September 2012 admissions (for sites participating in SINAP) www.rcplondon.ac.uk/sinap Site level report of the National Sentinel Stroke Organisational Audit 2010 (made available to Trusts in June 2010) National clinical guidelines for diagnosis and initial management of acute stroke and transient ischaemic attack (NICE, 2008) www.nice.org.uk/CG68 NICE Quality Standard for Stroke 2010 http://www.nice.org.uk/guidance/qualitystandards/stroke/strokequalitystandard.jsp National Stroke Strategy (Department of Health, 2007) http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_081062 Department of Health: Progress in improving stroke care (National Audit Office, 2010) http://www.nao.org.uk/publications/0910/stroke.aspx
Contact	ssnap@rcplondon.ac.uk

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Report prepared by

Ms Sara Kavanagh MSc
SSNAP Project Manager, Clinical Effectiveness and Evaluation Unit (CEEu), Royal College of Physicians

Mr Michael Roughton MSc
Medical Statistician, Clinical Standards, Royal College of Physicians

Prof Anthony Rudd FRCP
Chair of the Intercollegiate Stroke Working Party, Associate Director for Stroke (CEEu), Consultant Stroke Physician, Guy's and St Thomas' Hospital, London

Supported by

Dr Geoffrey Cloud FRCP
Associate Director for Stroke (CEEu),
Consultant Stroke Physician, St George's Hospital, London

Mrs Alex Hoffman MSc
Stroke Programme Manager, CEEu, Royal College of Physicians

Dr Martin James FRCP
Associate Director for Stroke (CEEu)
Consultant Stroke Physician, Royal Devon and Exeter Hospital, Devon

Mr Daniel McDonnell MPH
SSNAP Project Co-ordinator, CEEu, Royal College of Physicians

Ms Isla-Kate Morris MSc
SSNAP Project Co-ordinator, CEEu, Royal College of Physicians

Ms Lizz Paley
SSNAP Data Analyst, CEEu, Royal College of Physicians

Professor Pippa Tyrrell FRCP
Associate Director for Stroke (CEEu), Senior Lecturer / Honorary Stroke Physician, University of Manchester

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Thanks are due to many team members who contributed to organising the collection and retrieval of data including audit staff, IT and coding staff in addition to members of the clinical teams.

Foreword

2012 is an important year for the National Stroke Audit with a major change in the way that clinical data is being collected. From December onwards we are hoping that information will be submitted on all stroke patients admitted in England and eventually also Wales and Northern Ireland. We will continue to monitor and report on the quality of care in the acute hospitals and additionally follow the patients through all the settings where care is being delivered, up until 6 months after their stroke. This should provide more up to date and more detailed information for patients, clinicians, managers, commissioners and politicians. Comparison with historical data will be lost and therefore we decided to continue with the audit of the structure of services (organisation) more or less unchanged from last time. The huge change in the way the National Health Service is organised poses a major potential threat to the quality of clinical care for stroke patients. It is vital that we continue to monitor and report standards of care in a way that enables the commissioners and clinicians to modify systems urgently if quality slips. Where possible we are auditing against evidence based clinical standards. Where the evidence does not exist the standards have been set by an expert group – the Intercollegiate Stroke Working Party.

The latest data show further improvements in stroke care in all three countries. There have been some extraordinary transformations of some aspects of care, notably delivery of care for patients with transient ischaemic attack (mini-stroke), the provision of thrombolysis (clot busting) services and access to stroke units. In these areas we are among the best in the world. The Department of Health, the National Stroke Strategies, the Stroke and Cardiac Networks and the Stroke Improvement Programme have all played key roles in delivering this success. The data however also show that the job of ensuring that all stroke patients, in every part of the country can be assured of getting the best quality of care along the whole pathway including stroke prevention, acute care and rehabilitation, is far from complete. A lot more work is needed, particularly in the delivery of care in the community after discharge from hospital and in providing care for people with longer term disabilities.

In line with the transparency agenda which is requiring the release of hospital level data, the hospital reports will be made available publically in the spring of 2013 on the Royal College of Physicians website. We believe this is preferable to just releasing raw data that would be difficult to interpret without the context of the evidence base, national and regional benchmarks, qualifications over data reliability and recommendations for change.

Few other countries collect the wealth of data on stroke from all hospitals where patients are treated, that we do in England, Wales and Northern Ireland. The process of collecting the data is in itself a worthwhile exercise and should not be left solely to administrative staff. Using the data constructively is the role of all of the people working with stroke patients and indeed the patients and their carers themselves. We hope the new audit (Sentinel Stroke National Audit Programme, SSNAP) proves as successful as its predecessor. I thank everyone who has completed the audit forms this year and particularly the team at the Royal College of Physicians who have worked incredibly hard and well to produce this report.

Tony Rudd

Nine Key Recommendations

1. Quality of care should be audited against national standards in all hospitals, including community hospitals many of which have avoided close scrutiny up until now.
2. All organisations treating stroke patients should be collecting information and producing a report on patient experience at least once a year.
3. Seven day working for therapists is to be encouraged but should be done in a way that ensures that the overall quality of the service does not fall. If it means that staff are spread so thinly that there are never sufficient staff to deliver high quality care, then an alternative solution should be sought.
4. Every patient who might benefit from early supported discharge should have access to a team regardless of the hospital to which they are admitted or the address at which they live.
5. Rehabilitation should only end when the patient is no longer benefiting from it. Stroke/neurology rehabilitation teams should be available and staffed at a sufficient level to ensure that patients maximise their potential recovery.
6. All patients should be treated in a hospital that has the skills and facilities to deliver thrombolysis and other aspects of hyperacute care.
7. All patients should be admitted directly from the emergency department to a specialist stroke unit.
8. All stroke units should as a minimum be able to deliver the key standards of care defined in this report.
9. All organisations providing stroke care should identify, support and train the individuals who have the skills and expertise to be inspirational leaders for the service. These individuals may not necessarily come from the ranks of the medical profession.

Executive Summary

Introduction

This acute organisational audit report is the first report published under the auspices of the new Sentinel Stroke National Audit Programme (SSNAP). The Clinical Effectiveness and Evaluation Unit in the Royal College of Physicians first conducted the National Sentinel Stroke Audit (NSSA) in 1998 and subsequently a total of 7 rounds have been undertaken with 100% participation achieved since 2006. The acute organisational audit will provide continuity from previous biennial NSSA audits. The audit is based on standards agreed by representatives of the Colleges and professional associations of the disciplines involved in the management of stroke. The questions are well understood and comparable with the 2010 audit.

The Aims of the Sentinel Stroke National Audit Programme 2012

1. To audit against the National Clinical Guidelines for Stroke
2. To enable trusts to benchmark the quality of their stroke services nationally and regionally.
3. To measure the extent to which the recommendations made in the 2010 National Sentinel Stroke Organisational Audit have been implemented.
4. To measure the rate of changes in stroke service organisation since the implementation of the National Stroke Strategies and the publication of the National Audit Office Report.

Organisation of the Audit

This audit is part of the Department of Health funded national audit programmes (managed by the Healthcare Quality Improvement Partnership (HQIP)) and run by the Clinical Effectiveness and Evaluation unit (CEEu) of the Royal College of Physicians, London. Data were collected within trusts using a standardised method. This audit was overseen at a site level by a lead clinician for stroke who was responsible for the quality of data supplied. The audit is guided by a multidisciplinary steering group responsible for the RCP Stroke Programme – the Intercollegiate Stroke Working Party (ICSWP) (Appendix 1).

Availability of this report in the public domain

Site results will be available to the Department of Health and the Care Quality Commission in England, NHS Wales (Welsh Assembly Government), and the Department of Health, Social Services and Public Safety in Northern Ireland. We will publish public tables which will include key indicators from the organisational audit along with overall domain scores and total score by named hospital. These public tables will be uploaded separately to participants in Excel and PDF format shortly after the report is made available to trusts. We hope to make these tables public in time for the UK Stroke Forum in December 2012, subject to HQIP's standard reporting procedure. It is planned to make public your individual site level report on the RCP website in Spring 2012 in line with the transparency agenda. We will inform you when dates are finalised giving you as much notice as possible.

Participation

There is 100% participation of eligible trusts (151) in England, Wales and Northern Ireland. Guernsey and the Isle of Man also participated but Jersey declined.

Audit results

Stroke caseload

- Over 91,000 patients were admitted with stroke to sites in England, Wales and Northern Ireland over the previous year according to the audit data. The annual activity of sites varies considerably ranging from less than 50 to nearly 2000 admissions per site.
- There has been a dramatic increase in the proportion of patients being managed on stroke unit beds in recent years. 95% of patients on the day of the audit were on a stroke unit with about 1% on other 'acceptable wards', 1% on medical assessment units (MAUs) and 3% on other 'non-acceptable' wards. With a median ratio of 1.15 stroke unit beds to stroke admissions, the availability of beds appears to be appropriate. Use of beds by patients with TIA is very small.

Presentation, assessment and initial treatment

- The vast majority of ambulance services now use the FAST test to identify patients with stroke and transport positive patients urgently to hospital.
- The use of telemedicine has grown enormously since the last audit with 59% of all 176 sites (103/176) which treat patients in the first 72 hours after stroke now using telemedicine to enable remote viewing of images and 46% of sites (81/176) using video-enabled clinical assessment. 39% of sites (69/176) have a telemedicine rota with other hospitals for acute care.

Thrombolysis for stroke

- The most dramatic change in stroke services over recent years has been the increase in access to thrombolysis. 89% of sites now offer a thrombolysis service of some sort. 74% are now offering an onsite service 24 hours a day seven days a week. A further 7% had arrangements with another local hospital to provide out of hours cover and 9% had no onsite service but arrangements for cover at all times from a neighbouring site. Only 15 of the 45 sites that did not offer 24/7 onsite thrombolysis did not have an arrangement with the ambulance service to bypass their hospital where patients might benefit from thrombolysis to cover the 24 hour period and only 4 sites had no system in place at all to be able to offer their local population thrombolysis at least for part of the week. Of those sites that are treating patients with thrombolysis the median number of such patients treated in the previous year was 33 or 6.7% of all stroke patient admitted.
- Decisions about thrombolysis during normal working hours involve consultant stroke physicians in person in the vast majority of cases but that is not the situation out of hours where a consultant physician is only present in person in about 50% of instances with widespread use of telemedicine. In 12 sites the decision is made by a consultant solely with access to telephone. This cannot be regarded as being as safe as being there or at least being able to see and talk to the patient through a video link and certainly not if there is no facility for the consultant to see the brain imaging.
- It does not matter what specialty label a consultant has when taking part in a thrombolysis rota; what matters is that the clinician has the expertise necessary to be able to make the correct decisions, even in unusual cases. This does require that they have the core training in the management of acute stroke (not just the process of giving thrombolysis), interpreting brain imaging and are seeing sufficient patients to maintain

and build expertise. If all 437 stroke physicians on a thrombolysis rota were spread evenly across the 153 sites, there would be insufficient numbers of stroke physicians to run safe and legitimate rotas in all sites (an average of 2.9 physicians per site). Therefore the number of sites delivering hyperacute stroke care needs to be reduced or stroke physicians need to spread their expertise across several sites using telemedicine or other specialists need to be trained to take part in the rotas. This latter solution is clearly being adopted by many – with 322 non stroke or neurology physicians providing cover.

Stroke units

- All sites treating acute stroke patients in England, Wales and Northern Ireland now have a stroke unit. This is the first time this has been achieved in all 3 countries and is a major achievement considering where we were just a decade ago.
- Although there has been some improvement since the last audit, the frequency with which direct admission to the stroke unit is not possible remains of concern. Clearly there will be a small proportion of patients who need admission to alternative places within the hospital such as intensive care or coronary care units but apart from these instances there should be sufficient beds on the stroke unit to cope with peaks of demand. In many instances the failure to admit to the stroke unit is likely to be poor bed management rather than a paucity of bed numbers. It is good to see that virtually all units do now admit routinely 24 hours a day and at weekends.
- There has been a dramatic and welcome change in stroke unit admission policy since the last audit. Very few units now operate any exclusion policies based upon age, stroke severity, pre-existing dementia, or patients being assessed as having 'no rehabilitation potential' or needing end of life care. We just need to persuade the last 4 units that continue these policies of the error of their ways.
- Just over half of beds used solely for patients in the first 72 hours have a daily ward round. Only 30% of units which do not have specifically designated beds for the early stages of admission have daily ward rounds.
- Acute stroke patients should be managed on units staffed and equipped in a similar way to high dependency units. This includes daily consultant led ward rounds, ability to closely monitor physiological variables and access to immediate imaging when needed. 29% of units with beds specifically for the first 72 hours fulfil all of the 7 quality criteria for high quality stroke units. 90% achieve 5 or more of these criteria. Performance is less good where there are not specifically designated beds for the early stages of admission with the figures being 12% achieving all the standards and 88% achieving 5 or more standards. Perhaps most disappointing is that only 58% of units with beds specifically for the first 72 hours and 43% of units with combined beds have a policy for direct admission of patients from A&E and there are 20 units with hyper-acute beds that do not have access to continuous physiological monitoring. Overall these figures are a considerable improvement on previous audit results but do show that there is still more work to be done to ensure that all stroke patients are admitted to and managed on units fully compliant with the core standards.
- Only 5 units with beds specifically for patients after 72 hours operate a policy to exclude particular sorts of patients. This is five too many but the situation has radically changed for the better since the last audit

- The frequency of consultant ward rounds has increased on stroke units with beds for post 72 hour care with the majority of units providing senior specialist review at least 5 days a week.
- There has been a fairly rapid growth in the number of services now offering 6 or 7 day services. 25% of sites now have physiotherapy on seven day rotas with a further 12% operating six days a week. The numbers are less for occupational therapy (16% and 8% respectively) and much less for speech and language therapy (3% and 2%). Nursing and therapy staffing levels have not changed substantially since the last audit and still show a wide variation between hospitals. It is of concern that there is not a substantial increase in staffing levels given the increase in 7 day working. This suggests that existing resources are being spread more thinly.
- There is good access to other important services such as social work, orthoptics and orthotics but this is less good for podiatry with only 57% of sites being able to access a service within 5 days. Access to psychology services has improved on stroke units with 52% of units having some resource.
- There is no need for patients to remain in bed until assessed by a physiotherapist. However, there are still 12% of units where this practice occurs. In these units it would appear that there is insufficient training for or trust in the nursing staff to be able to make a key decision with regards to a patients' rehabilitation.
- At long last all stroke units hold at least weekly multidisciplinary meetings. 61% of sites hold more than two such meetings per week. It is of concern that only two thirds of sites include social workers in these meetings, and that in only a quarter of sites does the psychologist attend. Both of these disciplines should be integral members of the team.
- We have used 5 characteristics to define the quality of the stroke unit. Overall the quality of stroke units has improved a little since 2010 with 43% achieving all of the 5 key quality criteria (from 38% in 2010) but the proportion with major flaws (scoring 3 or less) has actually increased from 11% to 13%. Of these 5 characteristics, the major area for improvement is 'formal links with patients and carers'. This may be considered a less important component of care than some of the others but we would suggest that it is critical for a stroke unit to perform effectively. Without direct involvement of patients and carers it is very unlikely that the unit will address their needs adequately. We consider this to be one of the major areas for improvement over the next 12 months.

Service provided on medical assessment units (MAUs)

- One of the key findings from the 2010 audit was that too many patients were being managed initially on MAUs and the quality of care they received on those units was significantly lower than that offered to patients admitted directly to a stroke unit. This issue remains two years on although the numbers are reducing. On the day of the audit a total of 53 stroke patients were on an MAU across the 190 sites. 13% of all sites have a policy of directly admitting their patients to an MAU rather than a stroke unit. This is not a good model of care and certainly not supported by research evidence. Two thirds of sites (129) still use MAUs on occasion. Less than two thirds of these sites regularly have nurses on duty trained to perform screening of swallowing to assess whether patients can be fed and hydrated orally. Access to stroke medical specialists has improved a little with just under a quarter of these 129 units having 7 day a week access.

Management of stroke services

- There is a growing cohort of senior stroke staff who should be available to guide continuing improvements in stroke care. There is a paucity of very senior staff in dietetics and occupational therapy compared to the other professions. It is surprising given how few psychologists there are in stroke medicine that so many of them are employed at Band 8 b & c; might more at a lower grade be a better investment? The number of stroke consultant programmed activities (PAs) has risen to a median of 20 per site and there are 49 sites with at least one specialist registrar in stroke.
- 93% of sites have a strategic group responsible for stroke with many of these groups containing representatives from the board, stroke networks and commissioners. Almost three quarters of groups include patient representation. In at least two thirds of sites the audit results are considered at board level.
- A third of sites have not produced a report on patients' views of the clinical service over the past year and a quarter either never survey patient views or do so less than once a year. Achieving 100% on this standard should be one of the key aims for the next year. The new stroke audit (SSNAP) will in due course include patient and carer reported outcome and experience measures but until then it is the responsibility of each individual trust to find a way to seek patient views and act appropriately on them.
- Physicians are by far the dominant profession adopting leadership roles in stroke services with only 4 sites allocating the role to a nurse and none to therapists. One of the key factors in a successful service is the presence of strong leadership and finding the natural leader in a service should be a key role for trust managers. These figures suggest that maybe these managers should be more adventurous and less bound by traditional medical hierarchy when structuring their service. In most cases it does appear that the service leader is given appropriate time and resource to fulfil the role although it is amazing that in a small number of sites there are no meetings with trust management, neighbouring trust clinicians or any strategic planning meetings!
- The Stroke Research Network has been a dramatic success with 92% of sites registered for at least one research study and with the median being 4 per site. 163 sites have an individual available to help with data collection (median of 0.8 WTE per site).
- The burden of data collection, especially for larger units, is substantial. However, data collected by national audit is extremely valuable and the process of collecting and reviewing data is a useful way of monitoring services. Clinicians should be involved in this process. As we move towards continuous data collection, it is important to get the balance right so that clinicians are not spending excessive amounts of time routinely entering data. Trusts should support such activity.

Patient support and communication

- Involvement of patients in different aspects of the service has become more widespread, both in terms of patients being given information routinely about their own care and in developing the clinical and research aspects of the service. However there are still some services where the value of patient involvement is clearly still not recognised. At a minimum all patients should be provided with a named contact when care is transferred out of the hospital.
- 68% of sites say they have a service to support return to work and 50% provide vocational rehabilitation. This is at odds with surveys of patients that suggest that very

few get access to this sort of help after discharge from hospital; if the numbers are right then this is a welcome improvement and needs to be spread even more widely.

Pathway at discharge

- There has been a welcome substantial growth in the number of services providing early supported discharge after stroke up from 44% in 2010 to 66% in this audit. 85% of these services are stroke specific with the remaining 15% also taking other neurology patients. All ESD teams have physiotherapy and occupational therapy and most have speech and language therapy. Many also have access to a range of other specialties. There are however a few services that appear to have waiting times of over 2 weeks even for the core members of the team which would render the 'early supported discharge' team open to being taken to court under the Trade Descriptions Act! Overall a median of 30% of patients are treated by these teams making them an extremely useful adjunct to the specialist hospital service.
- 26% of sites have access to non-specialist early supported discharge. The evidence suggests that this is not as effective as a specialist service and that outcomes are likely to be better if people remain on the stroke unit rather than being discharged for to non-specific ESD teams for rehabilitation.
- While excellent progress has been made in developing inpatient and early supported specialist services the same cannot be said of longer term community rehabilitation which is just as important, if not more so. Over 40% of acute sites are sending their patients home without access to any specialist neurological rehabilitation. The teams that do exist are handling very large caseloads with a median of 18 patients seen in the previous week. Many of the teams have unacceptably long waiting lists..
- Half of all sites use non-specialist teams to provide on-going rehabilitation for their stroke patients. The longer term needs of stroke patients are often complex and become more difficult as time progresses, requiring considerable expertise to overcome. There is a strong argument for such treatment to be provided by therapists who do not also have to understand the best treatment techniques for a whole variety of other conditions as well. Again these team frequently have unacceptably long waiting lists.

TIA/Neurovascular Clinic

- TIA management is another area of care that has seen a dramatic improvement in service provision over recent years. Only a few years ago neurovascular clinics were unusual with waiting times often running into weeks or months. Now, 99% of sites (100% of trusts) provide neurovascular clinics and the median number of clinics per month is 20 with the interquartile range being from 20-28. The median waiting time for a clinic is 2 days. There are now very few areas of the country where a high risk TIA patient would need to wait more than a week and over half of high-risk inpatients (37% of high-risk outpatients) could be seen the same day seven days a week.

Community hospitals

- The use of community hospitals is widespread with 250 other locations identified as being used by stroke patients and so far has been largely provided without much external scrutiny. The new stroke audit, SSNAP, will monitor the standards of care as patients move through the entire pathway and we hope that all of these units will find it helpful to include their patients in the audit.

Changes over time

Acute stroke care organisation (Domain 1)

There has been a big growth in the percentage of sites with beds used solely for patients in the first 72 hours achieving all 7 acute criteria since from 13% in 2010 to 29% in 2012.

There has been huge growth in both the number of sites undertaking thrombolysis and the median number of patients treated per year has increased from 14 to 33.

Organisation of care (Domain 2)

There has been a small increase in the ratio of stroke unit beds to patients in hospital with stroke over successive years with it reaching 1.15 this year. Access to early supported discharge has risen sharply from 44% of sites to 66% this year; however there has been no similar improvement in access to specialist community rehabilitation from 55% to 57%.

Specialist roles (Domain 3)

Over half of units set up to specifically care for patients in the first 72 hours after stroke have consultant ward rounds at least seven days a week. Only 30% of units with mixed hyperacute and acute patients offer this service. There is no logic detectable in this disparity but does perhaps argue for focussing hyperacute stroke care in specialist units. In terms of access to other specialist services there have been small shifts in the right direction particularly for access to vocational rehabilitation.

Inter disciplinary services (for sites with a stroke unit) (Domain 4)

There has been a welcome improvement in access to psychology services on the stroke unit from 31% in 2006 to 46% now. But still over half of units have no access at all. At this rate of change it will not be until 2034 until we achieve 100%! There has however been a step change in the provision of 7 day therapy working, particularly for physiotherapy and to a lesser extent occupational therapy with a quarter of units have physiotherapy every day of the week.

TIA/neurovascular service (Domain 5)

In 2006 almost a quarter of all hospitals had no neurovascular clinic and the average waiting time for those clinics that were available was 12 days. We have now achieved clinics in 99% of sites (100% of trusts) with an average waiting time of two days. Perhaps this is one of the most important achievements thus far of the National Stroke Strategy. Perhaps surprisingly there has been an increase from 33% to 53% of hospitals that admit at least some of their high risk patients for investigation and management the same day 7 days a week.

Quality improvement and research (Domain 6)

The number of hospitals producing reports on stroke for the trust board has increased from 88% in 2010 to 93% this year but slightly concerning is the fall from 98% to 93% in the number of trusts with a strategic group responsible for stroke. We hope that this is not the beginning of a decline in the importance attached to stroke within health services. It is clear from this report that the job of transforming stroke care has started but is nowhere near completion.

Team working (Domain 7)
It is encouraging that over time the frequency of multidisciplinary meetings has increased with all units now having at least one such meeting a week. The composition of the teams has become stronger in the areas of clinical psychology, medicine and speech and language therapy. However, social work remains a major concern. Only 66% of teams now have regular social worker attendance, down from a high of 82% in 2009. At a time of huge complex changes in health and social care and with increasing financial problems for disabled people it is incomprehensible why such an important member of the multidisciplinary team should be seen as dispensable.

Communication with patients and carers (Domain 8)
The picture painted by this audit of patient and carer communication and involvement with service organisation and delivery is mixed with little change in some areas but larger improvements in others, such as between 2010 and 2012 the provision of personalised discharge plans increased from 60% to 86%, provision of a named contact on discharge from 71% to 76% and patient views having been sought from 88% to 92%.

Audit results by country

Thrombolysis provision and patients thrombolysed
Good progress has been made in all three countries in developing thrombolysis services, particularly in Wales which had minimal provision 2 years ago and now offers round the clock thrombolysis provision in 100% of its hospitals either onsite or in collaboration with a neighbouring hospital. In England and Northern Ireland these figures are 90% and 100% respectively. However a large proportion of hospitals in all three countries still only treat a small percentage of their stroke admissions. All hospitals should be able to treat at least 10% of unselected admissions and only about a quarter of sites in England and Wales achieve this and none in Northern Ireland.

Stroke unit provision
Finally all hospitals in all three countries have provided stroke units in all their hospitals. This major achievement should be celebrated although it has taken nearly 20 years since the evidence was published that they save lives and reduce disability. All of the three countries appear to have sufficient stroke beds for the number of stroke patients in hospital on the day of the audit, particularly Northern Ireland which had a ratio of 1.63 beds per patient.

Stroke care in the first 72 hours
Provision of appropriate care in the first 72 hours requires a high level of resource; such patients should be receiving the equivalent of High Dependency Unit support, both in terms of equipment, staffing levels and expertise. It is not enough simply to designate an area in a hospital as a hyperacute stroke unit and then assume that the patients will therefore receive hyperacute care. It is of serious concern that so many such units (both those with a separate hyperacute unit and those where the hyperacute beds are combined with the post 72 hour beds) fail to meet the basic standards defined in the audit. Less than a third of English units with designated pre-72 hour beds achieve all 7 quality criteria and none of the units in Wales or Northern Ireland. There are still clearly many hospitals that need to look at the services they are providing and urgently rectify their failings. There also appears to be an excessive use of medical assessment beds for stroke patients, rather than admitting

patients directly to the stroke unit. These beds demonstrably do not offer the same level of care that stroke units are able to offer and should rarely if ever be used. There is a particular penchant for the use of medical assessment beds in Wales and Northern Ireland that needs to be rectified.

Whole Time Equivalents (WTE) of staff across all stroke units
Junior medical staffing levels on stroke units in Wales and Northern Ireland are considerably lower than in England at a level that raises concerns at their ability to provide the level of cover that is needed for a safe service. Nursing and therapy levels are marginally lower in Wales than elsewhere, particularly for occupational therapy. Seven day working is growing fast in England but is yet to get a foothold in Wales or Northern Ireland.

Management of stroke services
The lack of junior medical staff in Wales and Northern Ireland compared to England is further compounded by less consultant time with both having only half the number of sessions. It is also disappointing that there is only one stroke specialist registrar in Wales and Northern Ireland. Either doctors in Wales and Northern Ireland are working extraordinarily hard, which may well be the case or else the patients are not getting sufficient attention; either way the situation is unsustainable.

Quality improvement
Wales are doing well in terms of ensuring that management and clinicians are working together overseeing and running stroke services and also in reviewing patient experience. Almost a third of English hospitals have not produced a report on patient views in the last year and only two of 11 sites have done so in Northern Ireland.

Research studies
Participation in stroke research has grown enormously in recent years particularly in England thanks to the stroke research network; there has also been an increase in the other two countries but at a slower rate.

Patient support and communication
Wales and Northern Ireland are performing better than England at the provision of patient focussed information and support, particularly in terms of linking with patient and carer organisations. None of the countries can be proud of the services that are provided for patients requiring vocational rehabilitation, although in all there has been improvement since the last audit.

Early Supported Discharge Teams and Community Rehabilitation Teams
Early supported discharge should be a fundamental component of every stroke service and in two thirds of sites in England and a 100% of Northern Irish areas it does now have a place. There is only one stroke/neurology specific team in the whole of Wales where it appears that they have opted to invest in non-specialist teams which have not been shown to be an effective model. It may be that demographic and geographical issues have influenced this choice but it is suggested that this issue is addressed again to see if the most effective form of care can be delivered in the transition between hospital and home. All countries have problems with specialist provision of longer term stroke and neurology community services but again this is particularly acute in Wales with only one such service in the whole of the country. The situation is scarcely better in Northern Ireland.

Section 1: Introduction and methodology

Introduction

This acute organisational audit report is the first report published under the auspices of the new Sentinel Stroke National Audit Programme (SSNAP). The Clinical Effectiveness and Evaluation Unit in the Clinical Standards Department of the Royal College of Physicians first conducted the National Sentinel Stroke Audit (NSSA) in 1998 and subsequently a total of 7 rounds have been undertaken with 100% participation achieved since 2006. SSNAP combines the NSSA and the Stroke Improvement National Audit Programme (SINAP) which audits care in the first 72 hours after stroke. In addition to this acute organisational audit, SSNAP will comprise an organisational audit of community stroke services and, from December 2012, prospectively collect a minimum dataset for every stroke patient covering acute care including rehabilitation and 6 month follow up. The acute organisational audit will provide continuity from previous biennial NSSA audits. The audit is based on standards agreed by representatives of the Colleges and professional associations of the disciplines involved in the management of stroke. The questions are well understood and comparable with the 2010 audit.

The Aims of the Sentinel Stroke National Audit Programme (SSNAP)

1. To audit against the National Clinical Guidelines for Stroke
2. To enable trusts to benchmark the quality of their stroke services nationally and regionally.
3. To measure the extent to which the recommendations made in the 2010 National Sentinel Stroke Organisational Audit have been implemented.
4. To measure the rate of changes in stroke service organisation since the implementation of the National Stroke Strategies and the publication of the National Audit Office Report.

Organisation of the audit

This audit is part of the Department of Health foundered national audit programmes (managed by the Healthcare Quality Improvement Partnership (HQIP)) and run by the Clinical Effectiveness and Evaluation unit (CEEu) of the Royal College of Physicians, London. Data were collected within trusts using a standardised method. This audit was overseen at a site level by a lead clinician for stroke who was responsible for the quality of data supplied. The audit is guided by a multidisciplinary steering group responsible for the RCP Stroke Programme – the Intercollegiate Stroke Working Party (ICSWP) (Appendix 1).

Availability of this report in the public domain

Site results will be available to the Department of Health and the Care Quality Commission in England, NHS Wales (Welsh Assembly Government), and the Department of Health, Social Services and Public Safety in Northern Ireland. We will publish public tables which will include key indicators from the organisational audit along with overall domain scores and total score by named hospital. These public tables will be uploaded separately to participants in Excel and PDF format shortly after the report is made available to trusts. We hope to make these tables public in time for the UK Stroke Forum in December 2012, subject to HQIP's standard reporting procedure. It is planned to make public your individual site level report on the RCP website in Spring 2012 in line with the transparency agenda. We will inform you when dates are finalised giving you as much notice as possible.

Eligibility and recruitment

The eligibility criteria for the organisational audit changed this year. Previously, only sites which directly admitted acute stroke patients were eligible. This year, to reflect the centralisation of stroke services and the establishment of a hyperacute model of stroke care in different parts of the country, sites that routinely admit patients within 7 days of stroke were also eligible to participate. Registration forms were submitted for each site which confirmed service configuration and details of the lead clinician and clinical audit lead.

Due to changes in service configurations and trust mergers the total number of sites decreased from 201 to 190 since the 2010 organisational audit. In total there were 163 sites in England, 14 in Wales, 11 in Northern Ireland and 2 Islands.

Participation

There is 100% participation of eligible trusts (151) in England, Wales and Northern Ireland. Guernsey and the Isle of Man also participated but Jersey declined. Please see Appendix 3 for more details of participating sites.

Methods

Standards in the audit

The proforma of questions (Appendix 2) has not changed significantly from the final round of the National Sentinel Stroke Organisational Audit 2010 to ensure continuity and enable comparability. A new section on leadership has been added after a pilot of the proforma was carried out with an emphasis on feedback for the new section. There have been minor changes made to the wording of some of the questions.

We are aware of the on-going reconfiguration of services across geographical areas and this audit has been devised to take account of a dynamic process. The audit reflects this in the formulation of questions to obtain information about what stroke services are available for the population served by the acute trusts and the provision of beds and staffing in the community. There is a need to understand what happens to stroke patients after their hospital stay, as part of SSNAP a community organisational audit will be devised and piloted in 2013.

Data collection tool

This round of the organisational audit saw the introduction of a new, more sophisticated and user friendly internet-based webtool. Two nominated leads from every site were given unique usernames and passwords which enabled them to access the webtool. Security and confidentiality were maintained through the use of site codes. High data quality was ensured through the use of built in validations which prevented illogical data being entered. Data could be saved during as well as at the end of an input session. Once data entry was completed, sites were advised to export and check their responses.

Data were entered between 23 July and 31 August 2012. Sites then had a week to check the accuracy of their data; after 7 September no changes were permitted. Each participating site was provided with a standardised help booklet containing data definitions clarifications and context specific online help was available on the webtool. A telephone and email helpdesk was provided by the CEEu to answer any individual queries.

Definitions

Definition of a 'site'

Lead clinicians were asked to collect data on the basis of a unified service typically within a trust. For most trusts the 'site' was the trust. For some trusts there were several 'sites' each offering a discrete service. A site may include several hospitals and some include more than one trust.

Stroke Unit

The definition used for a stroke unit (and used in this audit) is:

> *Stroke unit* - a multidisciplinary team including specialist nursing staff based in a discrete ward which has been designated for stroke patients.

Participants were asked to state the number of beds used for patients at different points in the pathway to differentiate the 'type' of stroke unit to which patients are directly admitted. The three categories of stroke unit beds are outlined below.

Type 1: beds used *solely* used for patients in the first 72 hours after stroke
Type 2: beds *solely* used for patients beyond 72 hours after stroke
Type 3: beds used for *both* the first 72 hours of care and beyond

It is apparent from peer review visits that there is a policy operating for direct admission to Medical Assessment Units (MAUs) and so questions about these types of beds are included.

5 SUTC key characteristics of all stroke units

Five key characteristics were chosen from the Stroke Unit Trialists' Collaboration (SUTC) and subsequent papers, as markers of good stroke unit organisation. The audit has assessed how many of these are in place. These will be referred to in the document as the 5 SUTC characteristics and are:

- Consultant physician with responsibility for stroke
- Formal links with patient and carer organisations
- Multidisciplinary meetings at least weekly to plan patient care
- Provision of information to patients about stroke
- Funding for external courses and uptake

7 Acute Criteria for beds used for the first 72 hours of care

To evaluate specifically the quality of *acute* stroke unit organisation we determined whether the following 7 criteria were met. These criteria are not all evidence based but were developed using the consensus of an expert working group.

The 7 acute criteria for units with beds providing care in the first 72 hours:

- Continuous physiological monitoring (ECG, oximetry, blood pressure)
- Immediate access to scanning for urgent stroke patients
- Direct admission from A&E/front door
- Specialist ward rounds on 7 days a week
- Acute stroke protocols/guidelines
- Nurses trained in swallow screening
- Nurses trained in stroke assessment and management

How to read this report

This report presents national and hospital level data for many important aspects of the organisation of stroke services. National results are presented as percentages, and site variation is summarised by the median and Inter-Quartile Range (IQR). Ratios of staffing numbers per 10 stroke unit beds are given rather than staffing numbers per se so as to allow an interpretation more relevant to national standards.

Denominators

The denominators within the report vary depending on the number of sites to which the data analysed relate. To illustrate, denominators can include all sites which participated (190), only sites which have a stroke unit (189), sites which treat patients in the first 72 hours (176), sites which have different 'types' of stroke unit beds, or sites which provide thrombolysis (156). A summary of the denominators used in the report is given in the table below.

Where the numerators and denominators do not add up exactly this is due to differences between the denominators within the table, the ability to select more than one answer option and the rounding up or down of the individual percentage values.

Summary of denominators used in report	
N sites	190
N hospitals covered by sites	215
N sites that treat some or all patients in the first 72 hours	176
Number of sites that do not treat patients in the first 72 hours	14
N of sites with a stroke unit	189
N of sites with a stroke unit that treat some or all patients in the first 72 hours	175
Number of sites with a stroke unit that do not treat patients in the first 72 hours	14
N stroke units with beds *solely for the* ***first 72 hours***	83
N stroke units with beds *solely for* ***beyond*** *the first* ***72 hours***	93
N stroke units with *beds for* ***first 72 hours and beyond***	122
N sites currently providing thrombolysis onsite	156
N sites providing 24/7 thrombolysis onsite	131
N sites providing 24/7 thrombolysis onsite or through local arrangements	159
N sites which treat stroke patients on medical assessment unit (MAU)	129
N patients on MAU on day of audit	53
N sites with access to stroke specialist early supported discharge team	126
N sites with access to non-specialist early supported discharge team	50
N sites with access to specialist community rehabilitation team	108
N sites with access to non-specialist community rehabilitation team	94
N sites with access to TIA/neurovascular clinic (onsite or within Trust)	190
N sites which identified 'other locations' providing bed based rehabilitation to which at least 10 patients are discharged per year	123
N of 'other locations' identified	250
N of 'other locations' with SU	116

Evidence

No references have been quoted in this report for reasons of space. All relevant evidence and standards are available in the following:

- National clinical guideline for stroke 4th edition (Royal College of Physicians, 2012) http://www.rcplondon.ac.uk/resources/stroke-guidelines
- National clinical guidelines for diagnosis and initial management of acute stroke and transient ischaemic attack (NICE, 2008) www.nice.org.uk/CG68
- NICE Quality Standard for Stroke 2010 http://www.nice.org.uk/guidance/qualitystandards/stroke/strokequalitystandard.jsp

Presentation of results

Section 2 provides a trust level summary of audit results. Results have been divided into 8 domains covering key aspects of the organisation of stroke services, with an overall total score. A breakdown of the standards within each domain, the criteria required to achieve the maximum score and the national spread of results are presented. The algorithm for the domains and total organisational score is described in Appendix 4.

Section 3 gives individual site results for every data item benchmarked against the national average.

Section 4 compares the results of the 2012 audit with previous rounds of the NSSA for those standards where comparison is possible.

Section 5 gives a regional comparison between England, Wales and Northern Ireland.

Section 6 will be the public tables which will include the key indicators for the acute organisational audit. We will publish overall domain scores and total score by named hospital. These public tables will be uploaded separately to participants in Excel and PDF format shortly after the report is made available to trusts. We hope to make these tables public in time for the UK Stroke Forum in December 2012, subject to HQIP's standard reporting procedure.

Section 2: Trust level summary of audit results 2012

For the first time we are providing you with the equivalent of your own site level executive summary. This chapter gives a comprehensive overview of the organisation of your service and provides information on your performance and relative position compared to all participating sites. It should point to key areas of good practice and areas requiring improvement.

The results are divided into 8 domains covering key aspects of the organisation of stroke care. A domain comprises several elements that relate to the topic. The chapter starts with your total organisational score and summarised results of your domain scores. This is followed by detailed information for each domain for your individual site. Individual results are given alongside the criteria required to score the maximum. A colour coding is used to show positions in the lower scores (orange), intermediate scores (white/grey) and upper scores (blue).

2.1 Domain scores for 2012

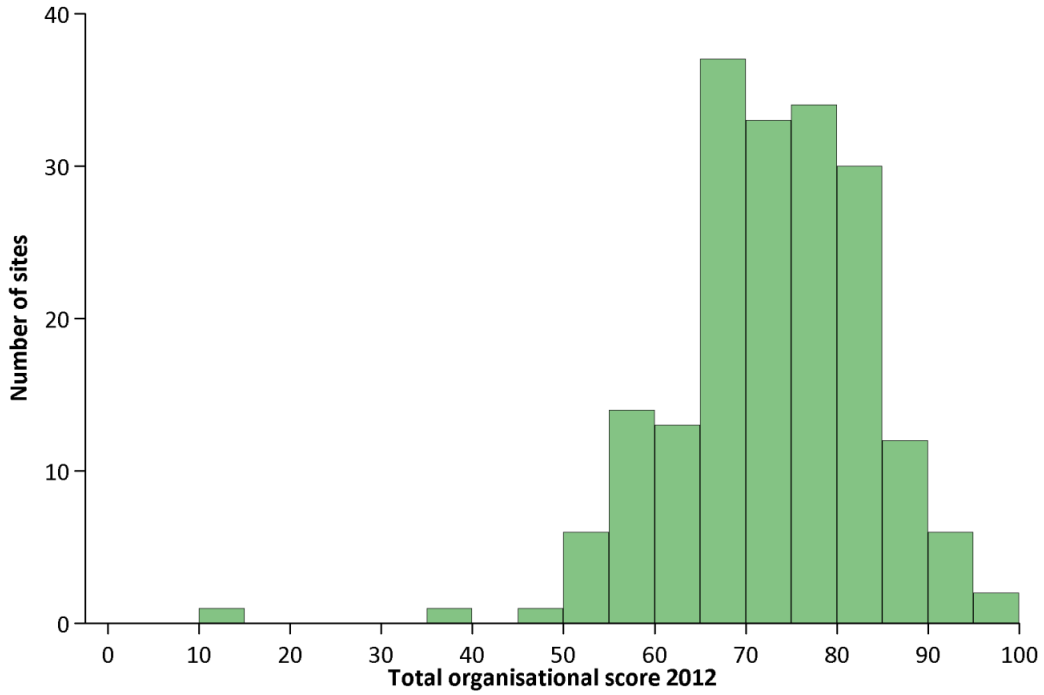
A scoring system was developed to enable sites to compare their organisation of stroke care with other sites. The scores for 8 separate components of organisation each range from 0 to 100 with 100 being the optimal score. A total organisational score is obtained by calculating the average of the 8 domain scores.

The scoring system has changed from the 2010 National Sentinel Stroke Audit. There are now more stringent criteria to achieve maximum points for several domain elements including proportion of patients thrombolysed, composition of early supported discharge (ESD) and community rehabilitation teams, and 6 or 7 day therapy working. Also, questions which were asked for the first time in 2010 are included in the scoring this time e.g. access to clinical psychology. The scoring algorithm is given in Appendix 4.

For each domain, sites are classed as having achieved a low, intermediate or high score. This will be based on their score in that domain, relative to all other sites. The aim is for these three categories to contain 25%, 50% and 25% of sites respectively. However, because scores for individual domains are discreet, the size of the three categories may differ if a large number of sites obtain the same score.

Domain scores and total organisational score will be made public by named hospital.

Your Total organisational score is



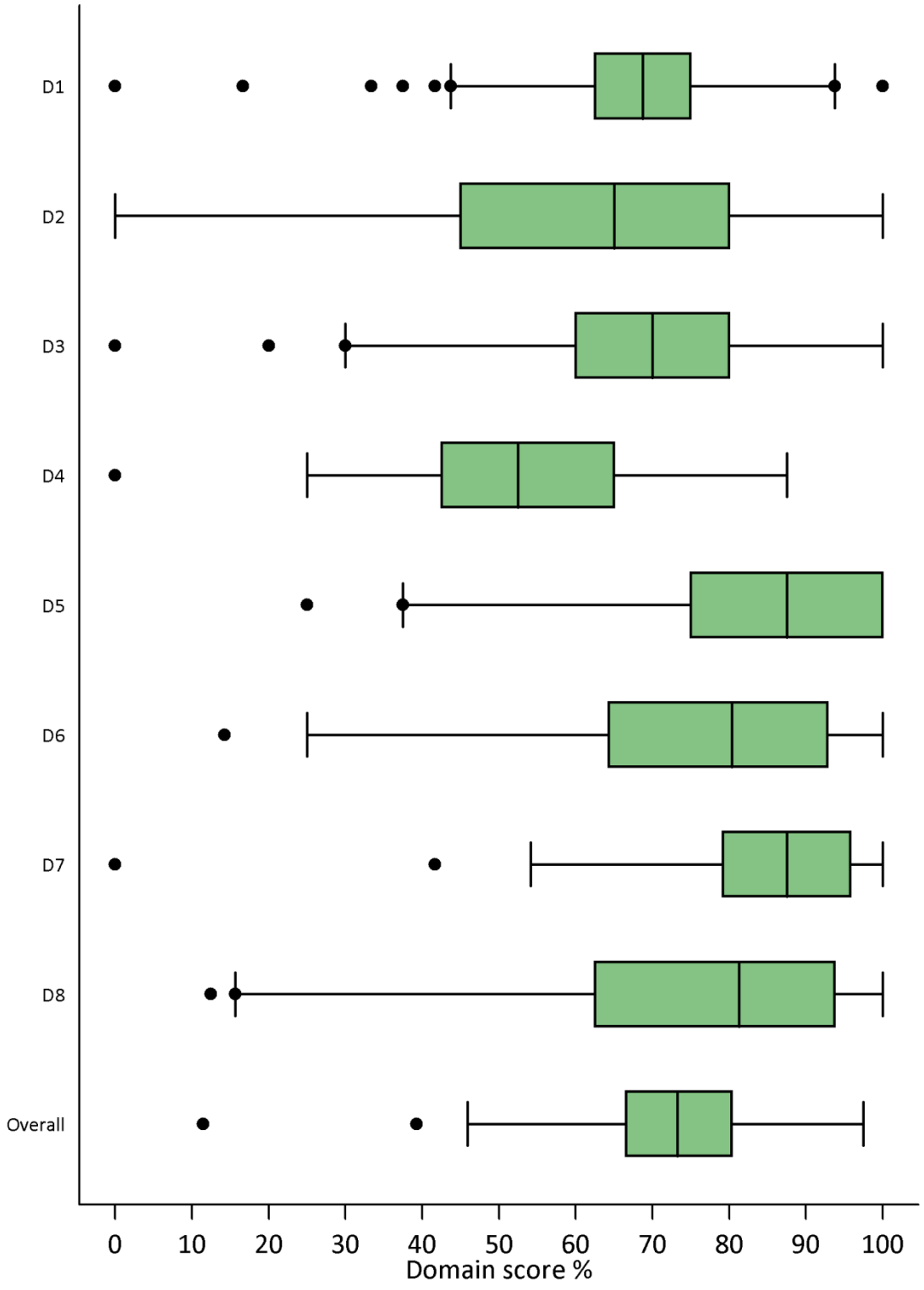
Summary of domain scores		Lower scores	Intermediate scores	Higher scores	Your site
D1	Acute care organisation*	67 sites (35%) scored 0-62.5	81 sites (43%) scored 66.7-75.0	42 sites (22%) Scored 87.5-100	
D2	Organisation of care	56 sites (29%) Scored 0-45.0	89 sites (47%) Scored 50.0-80.0	45 sites (24%) Scored 85.0-100	
D3	Specialist roles	66 sites (35%) Scored 0-60.0	78 sites (41%) Scored 62.5-80.0	46 sites (24%) Scored 81.3-100	
D4	Interdisciplinary services (Stroke Unit)	54 sites (29%) Scored 0-42.5	96 sites (51%) Scored 45.0-65.0	40 sites (21%) Scored 67.5-87.5	
D5	TIA/ Neurovascular clinic	79 sites (42%) Scored 25-75.0	111 sites (58%) Scored 87.5-100	0 sites (0%) NA	
D6	Quality improvement, training & research	54 sites (28%) Scored 14.3-64.3	102 sites (54%) Scored 66.1-92.9	34 sites (18%) Scored 96.4-100	
D7	Team meetings	67 sites (35%) Scored 0-79.2	106 sites (56%) Scored 83.3-95.8	17 sites (9%) Scored 100-100	
D8	Communication with patients & carers	48 sites (25%) Scored 12.5-62.5	112 sites (59%) Scored 64.1-93.8	30 sites (16%) Scored 95.3-100	
Organisational audit total score		48 sites (25%) Scored 11.5-66.6	95 sites (50%) Scored 66.6-80.4	47 sites (25%) Scored 80.4-97.5	

*14 sites which do not treat patients during the first 72 hours after stroke have been allocated the Domain 1 score of the site where their patients are treated this during this initial phase.

The median total organisational score was 73.3. The inter-quartile range was from 66.6 to 80.4, the 10th to 90th centile range from 59.5 to 85.6, and the total range from 11.5 to 97.5.

Please note that all scores rounded to one decimal place after calculation.

Spread of organisational domain scores and total scores 2012

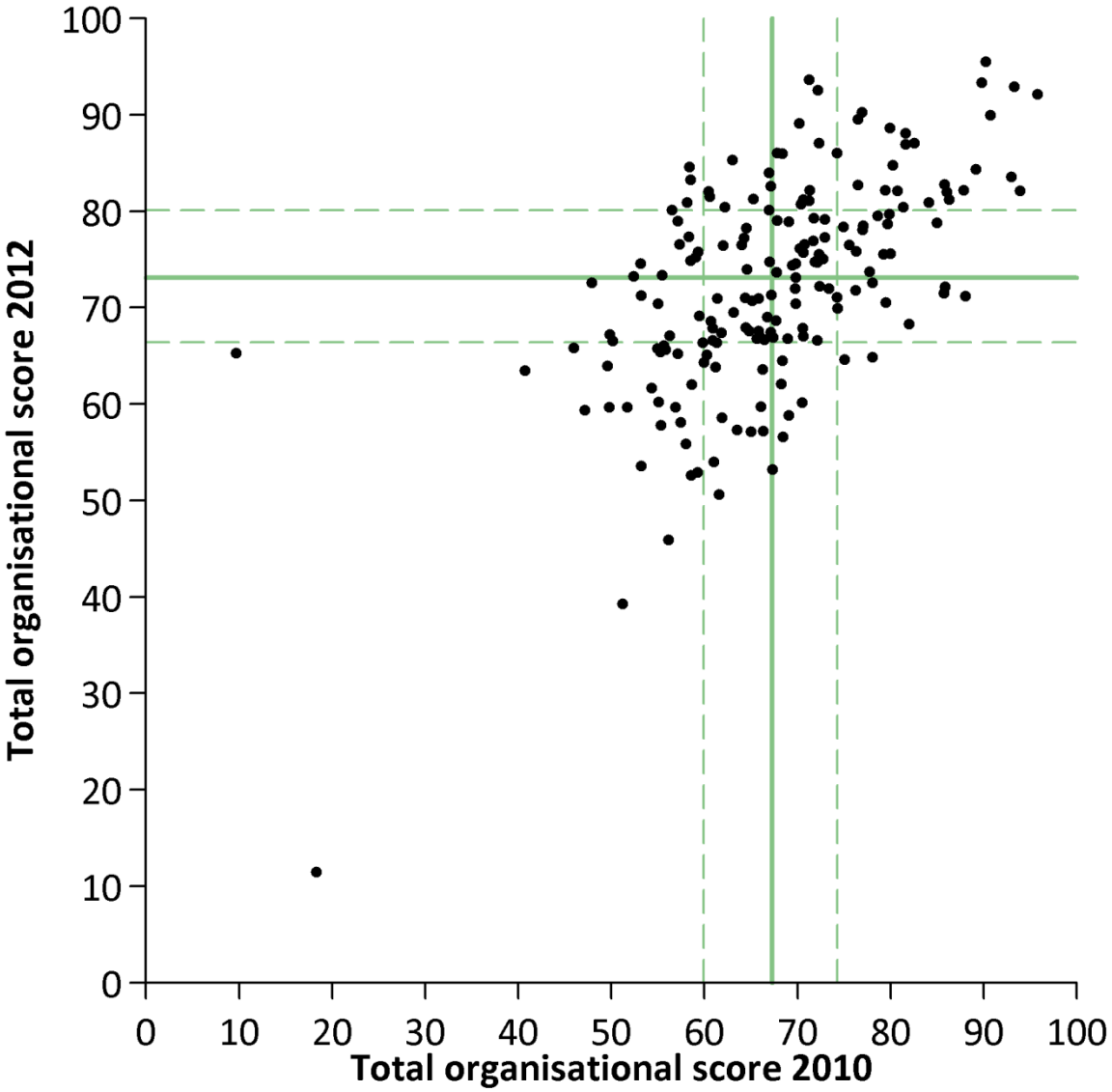


1.2 Comparison with previous audit (2010)

In the table below we compare relative positions as in the following table which groups sites according to the quartile split of scores. 181/190 sites are comparable:

		Organisational score 2012			Total
		Lower quartile	Middle half	Upper quartile	
Organisational score 2010	Lower quartile	27	17	3	47
	Middle half	19	50	18	87
	Upper quartile	2	22	23	47

In 2010 **your site** was in the
In 2012 **your site** was in the



Solid lines represent the median scores in 2010 and 2012, whilst the dashed lines represent the lower and upper quartiles.

Domain 1 - Acute care organisation

Standard: A stroke patient should always be cared for on a stroke unit which has the necessary equipment and procedures in place and is staffed with trained multidisciplinary clinicians.

Patients seen within 4 and a half hours of developing symptoms should be considered for thrombolysis. Not all patients are suitable and giving the treatment to unsuitable patients can be dangerous. However when given to the right patients, at the right time and in the right way it can dramatically reduce the risk of long term disability.

14 sites which do not treat patients during the first 72 hours after stroke have been allocated the Domain 1 score of the site where their patients are treated this during this initial phase.

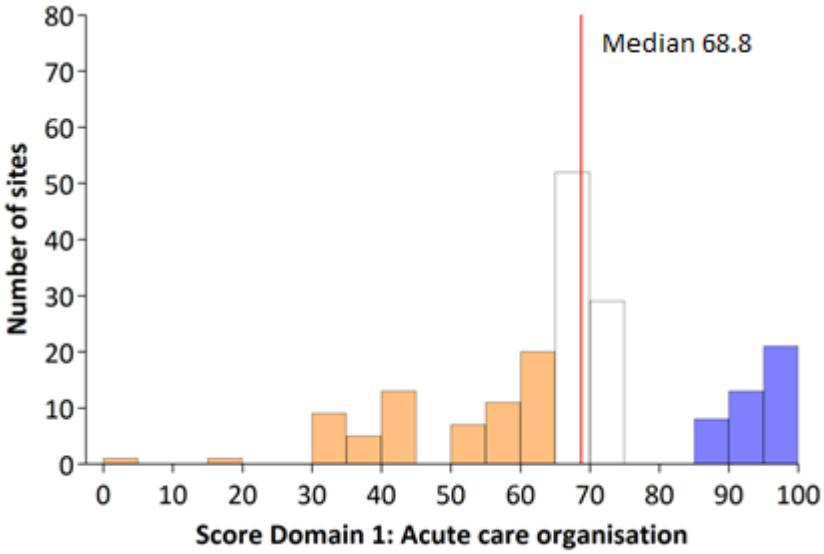
	Your site	Maximum score if,
Quality of care of stroke units treating patients within the first 72 hours of stroke applying seven acute features*		7 features
Number of patients thrombolysed from 1 April 2011 – 31 March 2012 (Q1.6) AS A PERCENTAGE OF the total number of patients admitted with stroke between 1 April 2011 – 31 March 2012 (QB6)**		More than 10% patients thrombolysed
Level of thrombolysis provision – hours per day and days per week on- and off-site		24/7 on- and/or off-site
Score domain 1		100

* Continuous physiological monitoring (ECG, oximetry, blood pressure), Immediate access to scanning for urgent stroke patients, direct admission from A&E/front door, specialist ward rounds on 7 days a week, acute stroke protocols/guidelines, nurses trained in swallow screening, nurses trained in stroke assessment and management

** Sites which provide less than 24/7 thrombolysis onsite are removed from the denominator for this element of the domain i.e. they are scored out of 6 rather than 8.

The table below shows the range of scores for Domain 1. The median national score is 68.8.

Lower scores	Intermediate scores	Higher scores
67 sites (35%) scored 0-62.5	81 sites (43%) scored 66.7-75.0	42 sites (22%) Scored 87.5-100



Domain 2 - Organisation of care

Standard: All patients with suspected stroke should be admitted directly to a specialist acute stroke unit unless they need more intensive care for example on an intensive care unit.

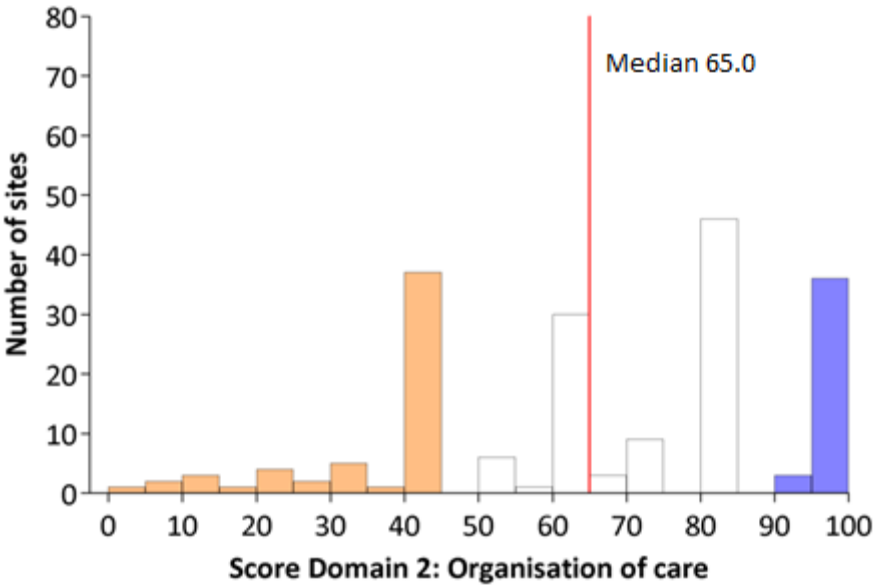
Community-based stroke-specialist rehabilitation teams, such as Early Supported Discharge teams, can provide better and potentially more cost-effective outcomes than exclusively hospital-based rehabilitation for stroke patients with moderate disabilities.

	Your site	Maximum score if,
All stroke patients in stroke unit beds (or in Intensive therapy unit, coronary care unit or high dependency unit)		Yes
Ratio of stroke unit beds to the number of inpatients with stroke on the day*		More than or equal 1
Presence and composition of a stroke/neurology specialist early supported discharge (ESD) multidisciplinary team		Yes and at least 4 disciplines including PT, OT and SALT
Presence and composition of a stroke/neurology specialist community team for longer term management		Yes and at least 4 disciplines including PT, OT and SALT
Access to at least one of PT, OT or SALT in specialist ESD team within 48 hours		Yes
Score domain 2		100

* A value of 1.00 indicates that there are equal numbers of stroke patients and stroke unit beds on the day of the audit. If the number is less than 1.00, there are more stroke patients than stroke unit beds.

The table below shows the range of scores for Domain 2. The median national score is 65.0

Lower scores	Intermediate scores	Higher scores
56 sites (29%) Scored 0-45.0	89 sites (47%) Scored 50.0-80.0	45 sites (24%) Scored 85.0-100



Domain 3 - Specialist roles

Standard: Stroke is a complex disease and is best managed by staff with specialist knowledge and experience both in the initial phase where diagnosis and acute treatment is a priority and subsequently during the period of rehabilitation.

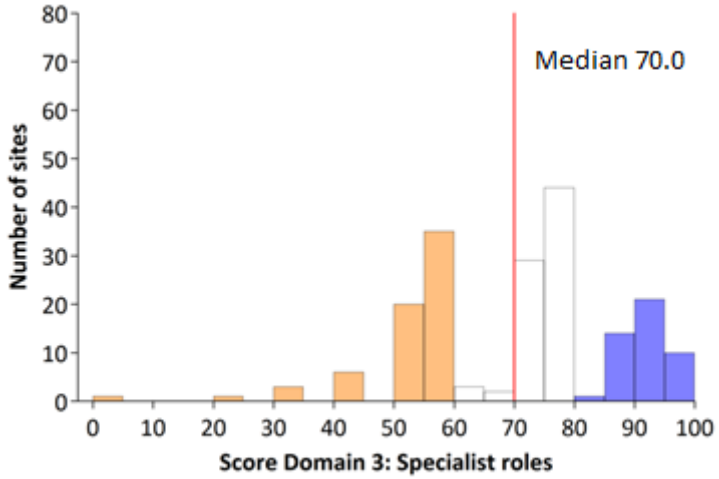
All patients who are dying from their stroke should have care provided by staff experienced in recognising the need for palliative care and delivering it.

	Your site	Maximum score if,
Frequency of consultant ward rounds per week*		on 7 days a week
Presence of senior nurses and therapists (band 7 or above) on the SU		Yes
Access within 5 days to social work expertise, orthotics, orthoptics, podiatry		Yes to all four specialties
Palliative care patients treated on the SU		Yes
Access to clinical psychologists and provision of following aspects of psychological care i. mood assessment ii. higher cognitive function assessment iii. mood treatment iv. higher cognitive function treatment v. non-cognitive behavioural problems assessment and/or treatment		Access and all five aspects of psychological care provided for inpatients and outpatients
i. Provision of service which supports stroke patients to remain in, return to or withdraw from work and/or ii. Provision of educational or vocational training		Yes to either services provided
Patients stay in bed until assessed by physiotherapist		No
Score domain 3		100

*14 sites which do not treat patients in the first 72 hours are removed from the denominator for this element of the domain i.e. they are scored out of 8 rather than 10.

The table below shows the range of scores for Domain 3. The median national score is 70.0

Lower scores	Intermediate scores	Higher scores
66 sites (35%) Scored 0-60.0	78 sites (41%) Scored 62.5-80.0	46 sites (24%) Scored 81.3-100



Domain 4 - Interdisciplinary services (stroke unit)

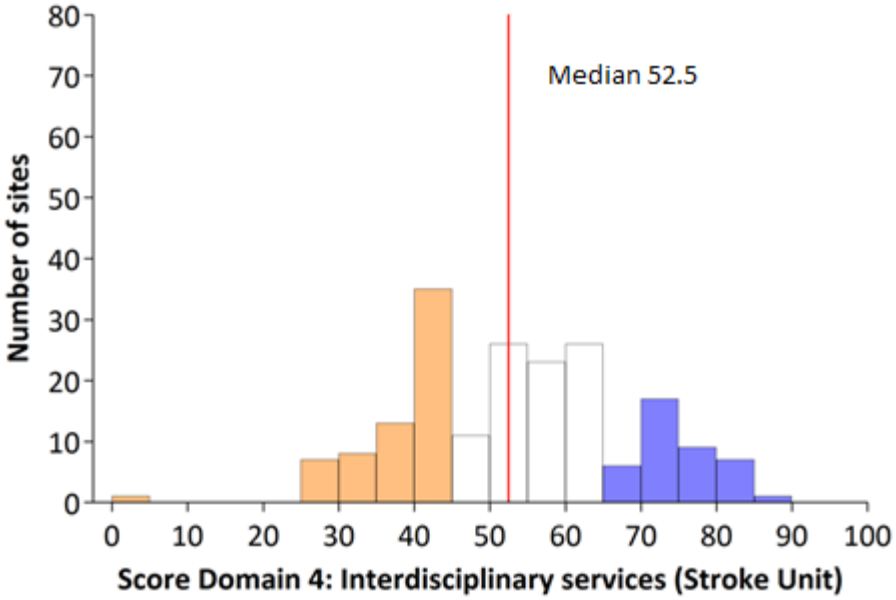
Standard: Effective multidisciplinary working is the most important aspect of stroke care. Staff should co-ordinate their treatments, involve patients and carers in the process and be able to provide as much therapy as the patient can tolerate.

	Your site	Maximum score* if,
Qualified nurses on duty at 10 am weekdays per 10 SU beds		2.26 or more
Care assistants on duty at 10 am weekdays per 10 SU beds		2.05 or more
Qualified therapy staff availability in WTE (Whole Time Equivalents) per 10 SU beds		
Clinical psychology		0.12 or more
Dietetics		0.28 or more
Occupational Therapy		1.365 or more
Physiotherapy		1.61 or more
Speech & Language Therapy		0.705 or more
Pharmacy		0.26 or more
6 or 7 day working for occupational therapy, physiotherapy, speech and language therapy		6 or 7 day working for at least 2 disciplines
Score domain 4		100

* The scoring and position in the quartiles for each of the specialties is based on the 2012 site variation.

The table below shows the range of scores for Domain 4. The median national score is 52.5.

Lower scores	Intermediate scores	Higher scores
54 hospitals (29%) Scored 0-42.5	96 hospitals (51%) Scored 45.0-65.0	40 (21%) Scored 67.5-87.5



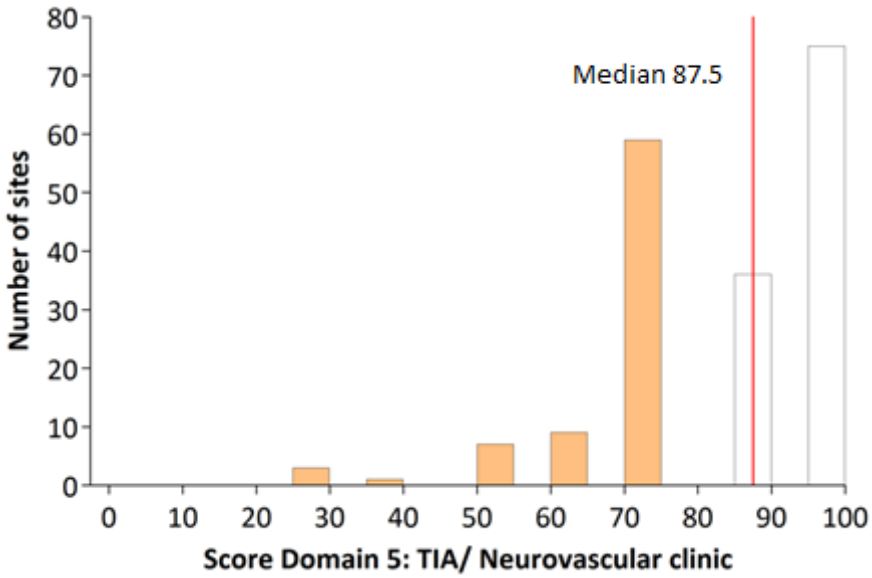
Domain 5 - TIA/ Neurovascular clinic

Standard: High-risk TIA patients should be seen, investigated and treatment initiated within 24 hours of onset of symptoms. For low-risk TIA patients the time frame is one week.

	Your site	Maximum score if,
TIA service can see, investigate & initiate treatment for ALL **HIGH**-RISK patients within 24 hours		Same or next day (7 days a week)
TIA service can see, investigate & initiate treatment for ALL **LOW**-RISK patients within one week		Within a week
Usual waiting time to get carotid imaging (**HIGH-RISK** TIA)		Same or next day (7 days a week)
Usual waiting time to get carotid imaging (**LOW-RISK** TIA)		Within a week
Score domain 5		100

The table below shows the range of scores for Domain 5. The median national score is 87.5.

Lower scores	Intermediate scores	Higher scores
79 sites (42%) Scored 25-75.0	111 sites (58%) Scored 87.5-100	0 sites (0%) NA



*For this domain there are no sites in the 'higher score' category due to the large number of sites scoring 75% or 100%.

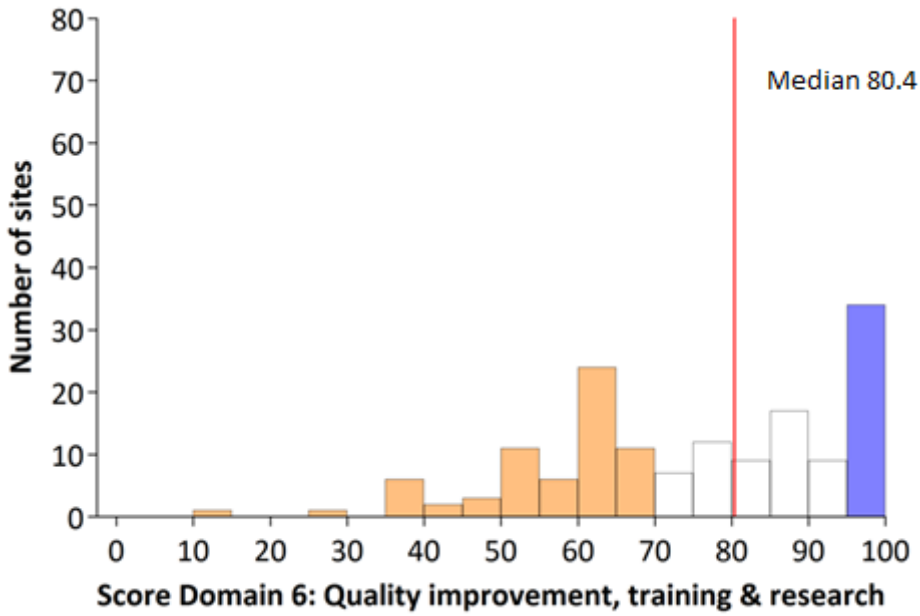
Domain 6 - Quality improvement, training & research

Standard: High quality leadership is the cornerstone for developing and delivering high quality stroke services. Poor quality services invariably have poor quality clinical and or managerial leaders.

	Your site	Maximum score if,
Report on stroke service produced for trust board (e.g. on audit results)		Yes
Members of strategic group responsible for stroke		
Ambulance trust representative		Yes
Clinician		Yes
Patient representative		Yes
PCT commissioner		Yes
Social services		Yes
Stroke Network representative		Yes
Trust board member		Yes
Funding for external courses available for nurses & therapists and at least 10 study days funded between April 2011 and March 2012		Yes
Clinical research studies		4 or more
Score domain 6		100

The table below shows the range of scores for Domain 6. The median national score is 80.4.

Lower scores	Intermediate scores	Higher scores
54 sites (28%) Scored 14.3-64.3	102 sites (54%) Scored 66.1-92.9	34 sites (18%) Scored 96.4-100



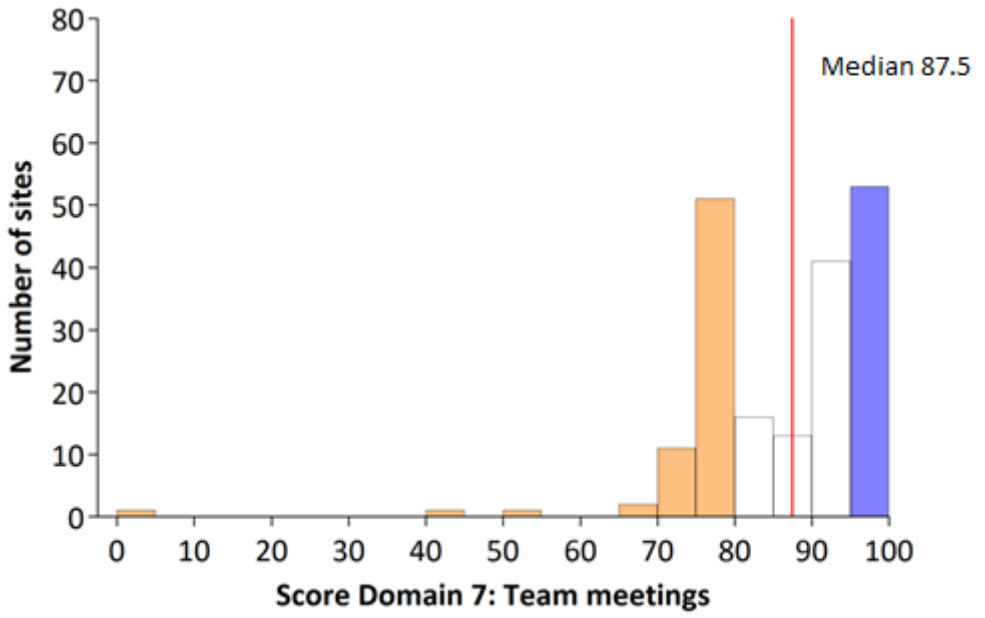
Domain 7 - Team meetings

Standard: Effective communication between all the stroke team members is vital. Expertise from nursing, medicine and all the therapy professions including clinical psychology is required.

	Your site	Maximum score if,
Frequency of formal team meetings		more than twice a week
Members of the team		
Clinical Psychology		Yes
Dietetics		Yes
Medicine (senior doctor)		Yes
Nursing		Yes
Occupational Therapy		Yes
Physiotherapy		Yes
Social Work		Yes
Speech & Language Therapy		Yes
All stroke unit inpatients discussed in the meetings		Yes
Score domain 7		100

The table below shows the range of scores for Domain 7. The median national score is 87.5.

Lower scores	Intermediate scores	Higher scores
67 (35%) Scored 0-79.2	106 (56%) Scored 83.3-95.8	17 (9%) Scored 100-100



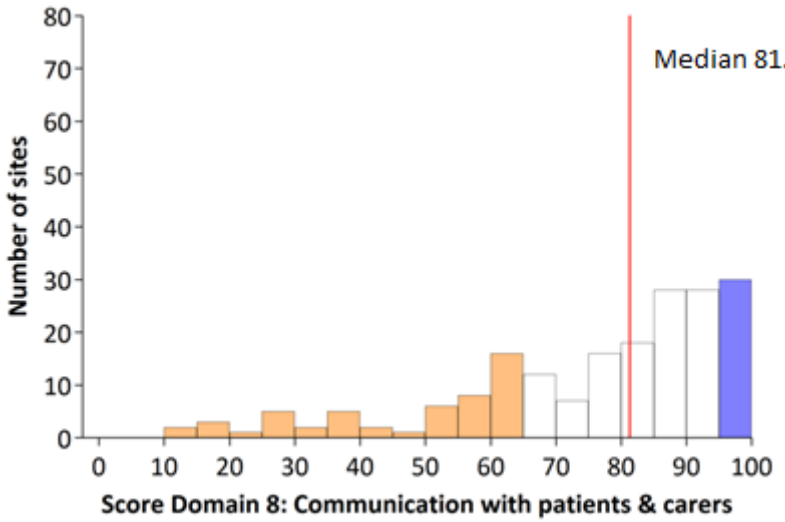
Domain 8 - Communication with patients & carers

Standard: Patient and carers should be provided with comprehensive information about the services they may need and how to access them on discharge from hospital, as well as on how to prevent further strokes.

	Your site		Maximum score if,
	Stroke units	Outpatients	
Patient have access to their management plan (Q9.1)			Yes on both
Availability of patient information on each of the following topics for stroke units & outpatients (Q9.2)			
• Patient version of national or local guidelines/standards			Yes on both
• Social services			Yes on both
• Benefits agencies			Yes on both
• Secondary prevention advice			Yes on both
Patients are given a personalised rehabilitation discharge plan (Q9.3)			Yes
Formal links with patients and carers organisations on ALL of the following: services provision, audit, and service reviews and future plans (Q9.4).			Yes
Community user group for stroke (Q9.5)			Yes
Policy to give patients a named contact on transfer from hospital to the community (Q9.6)			Yes
Patient/carer views sought on stroke services (Q8.6)			Continuous or more than 4 times a year
Report produced within past 12 months which analysed views of patients (Q8.7)			Yes
Score domain 8			100

The table below shows the range of scores for Domain 8. The median national score is 81.3.

Lower scores	Intermediate scores	Higher scores
48 (25%) Scored 12.5-62.5	112 (59%) Scored 64.1-93.8	30 (16%) Scored 95.3-100



Section 3: Audit results for individual sites 2012

3.1 Overview of stroke services

Denominators for this section	
N sites	190
N hospitals covered by sites	215
N sites that treat some or all patients in the first 72 hours	176
Number of sites that do not treat patients in the first 72 hours	14
N sites with a stroke unit	189
N hospitals covered by sites with a stroke unit	214
N of sites with a stroke unit that treat some or all patients in the first 72 hours	175
Number of sites with a stroke unit that do not treat patients in the first 72 hours	14
N stroke units with beds *solely for the **first 72 hours** (Type 1 beds)*	83
N stroke units with beds *solely for **beyond** the first **72 hours** (Type 2 beds)*	93
N stroke units with *beds for **first 72 hours and beyond** (Type 3 beds)*	122

3.1.1 Who completed the organisational audit proforma? (QA.1)

	National (190 sites)		**Your site**
Doctor	80%	(152)	
Nurse	59%	(112)	
Manager	31%	(58)	
Therapist	27%	(52)	
Clinical Audit / Clinical Governance	26%	(49)	
Other*	15%	(28)	

*comprises stroke coordinator (11), stroke administrator (6), information/data services (5), manager (2), clinical psychology (1), modern matron stroke (1), stroke multi-disciplinary team (1), stroke secretary (1)

3.1.2 Site description

Out of 190 sites participating in the audit, 88% (167) covered 1 hospital, 11% (21) covered 2 hospitals and 1% (2) covered 3 hospitals.

Your report covers stroke services in **X** hospital(s):

3.1.3 Type of service provided overall

To take account of service reconfigurations, in particular the introduction of centralised models of hyperacute care, sites were asked about the extent to which they treat patients in the first 72 hours after stroke.

Care in the first 72 hours after stroke (Q1.1)	National (190 sites)		Your site
Care provided for ALL patients in the first 72 hours after stroke	84%	(159)	
Care provided for SOME stroke patients in first 72 hours after stroke	9%	(17)	
Care is NOT provided for patients within first 72 hours of stroke	7%	(14)	

The 14 sites which do not treat patients within the first 72 hours of stroke are the London Acute Stroke Units (ASUs). Following the centralisation of services in London in 2010, hyper-acute stroke care is provided by 8 Hyper-Acute Stroke Units (HASUs) with patients being repatriated to the ASUs after 72 hours.

Following this model of stroke care, London ASUs did not answer Section 1 of the organisational proforma which covers acute care (See appendix 2 for proforma). Nor did they answer any questions related to stroke beds used solely for the first 72 hours of stroke care (Section 3A) or beds used for both first 72 hour care and beyond (section 3E).

3.1.4 Type and number of stroke unit beds (Q3.1)

Of the 190 sites which participated in the audit, 1 site (States of Guernsey Health and Social Services Department) does not have a stroke unit. Across the 189 sites with a stroke unit, there is a national total of 5276 stroke unit beds, median 25 per site and IQR 20-34 per site.

The 189 sites were made up of 214 hospitals, of which 212 had stroke unit beds. 168 sites had stroke unit beds in 1 hospital, 19 in two hospitals and 2 in three hospitals. There is a median of 23 stroke unit beds and IQR 18-29 per hospital with a stroke unit.

Your site had X stroke unit beds in X hospital(s).

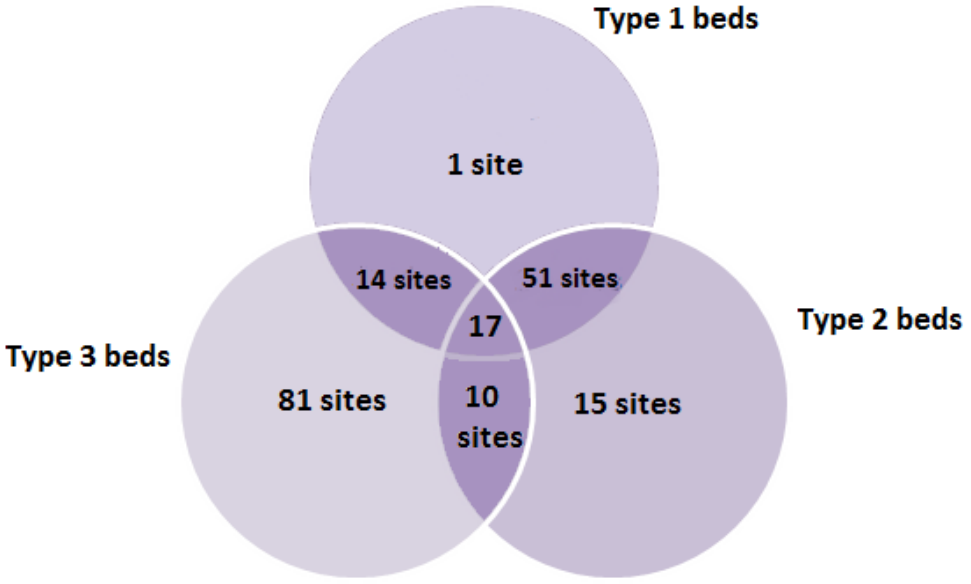
Of the 189 sites with a stroke unit, 175 stated that they provide care to patients in the first 72 hours after stroke (from Q1.1). These sites were asked to provide information on the number of beds used *solely* for patients in the first 72 hours (Type 1 beds) and the number of beds used for *both* the first 72 hours and post 72 hour care (Type 3 beds). 14 sites (London ASUs) stated that they do not treat patients in the first 72 hours so were not asked about these types of beds. All 189 sites were asked about the number of beds used solely for patients post 72 hours after stroke (Type 2 beds).

Type and number of SU beds (Q3.1)	Total N of beds	Site level			Your site
		%	N	Median (IQR)	
Beds solely used for patients in first 72 hours after stroke (3.1c)	National (175 sites)				
	660	47%	(83)	6 (4-11)	
Beds for pre- and post-72 hour care (3.1e)	2596	70%	(122)	20 (15-27)	
Beds solely used for patients beyond 72 hours (3.1d)	National (189 sites)				
	2020	49%	(93)	20 (15-26)	

The table and diagram below show the number of sites with each 'type' of bed. The 'types' are not mutually exclusive i.e. sites can have more than one 'type'.

Key: Type 1: Beds *solely* for first 72 hours of care
Type 2: Beds *solely* for beyond 72 hours of care
Type 3: Beds for *both* first 72 hours of care and post 72 hour care

Combinations of 'types' of SU beds (189 sites):	% (N) of type of bed combinations		Median (IQR) of all SU beds	National Total of all SU beds (N = 5276)	Type of SU bed: National totals		
					Type 1 beds	Type 2 beds	Type 3 beds
Type 1 only	1%	(1)	20 (20-20)	20	20	0	0
Type 2 only	8%	(15)	20 (20-22)	326	0	326	0
Type 3 only	43%	(81)	22 (18-28)	1825	0	0	1825
Type 2 and Type 3	5%	(10)	35 (32-43)	369	0	149	220
Type 1 and Type 3	7%	(14)	25 (23-28)	377	62	0	315
Type 1 and Type 2	27%	(51)	28 (21-39)	1681	464	1217	0
Type 1, Type 2 and Type 3	9%	(17)	36 (32-49)	678	114	328	236



3.1.5 Stroke caseload (QB1 – B6)

On the day of the audit (2 July 2012)

Comment: There has been a dramatic increase in the proportion of patients being managed on stroke unit beds in recent years. 95% of patients on the day of the audit were on a stroke unit with about 1% on other 'acceptable wards', 1% on medical assessment units (MAUs) and 3% on other 'non-acceptable' wards. With a median ratio of 1.15 stroke unit beds to stroke admissions, the availability of beds appears to be appropriate. Use of beds by patients with TIA is very small.

Location of stroke patients	National						Your site
	Sites (n=190)	Patients per site			Patients nationally		
	% (N)	Mean	Median	IQR	Total	%	N patients
Total (QB1)	100% (190)	23.5	21	15-30	4458	-	
In stroke unit beds (QB2)	99% (189)	22.3	20	15-29	4232	95%	
In general assessment/ decision beds (QB3)	17% (32)	0.3	0	0-0	53	1%	
On 'acceptable' other wards *(QB4)	17% (32)	0.6	0	0-1	44	1%	
On 'non-acceptable' other wards (QB4)**	24% (46)	1.9	1	0-2	131	3%	

*Acceptable 'other' locations are coronary care unit (CCU), intensive care unit (ITU) and high dependency unit (HDU)
**Non-acceptable 'other' locations are care of the elderly ward, neurology ward, generic rehabilitation unit, general medical ward, 'others' & 'unknown'. (The location of 7 patients in 2 sites was unknown due to incomplete data being entered and are therefore included in the "non-acceptable other" category).

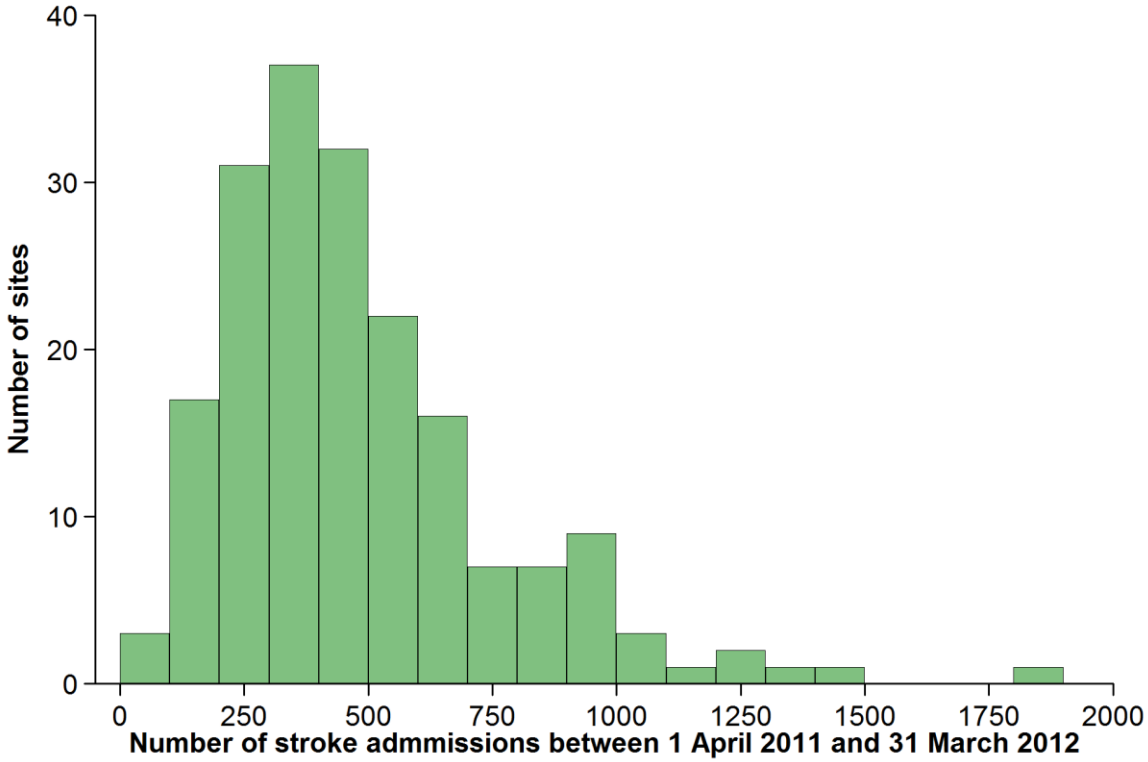
Location of TIA patients	National							Your site
	Sites		Patients per site			Patients nationally		
	N	%	Mean	Median	IQR	Total	%	N patients
Total (QB5)	190	38% (72)	0.7	0	0-1	126	-	
In stroke unit beds(QB5a)	72	82% (59)	1.4	1	1-2	101	80%	

	National (189 sites with stroke unit) Median (IQR)	Your site
Percentage of stroke patients NOT in stroke beds (B4)	0.0% (0.0-6.7%)	
Percentage of SU beds NOT occupied by stroke patients	17.4% (6.5-33.3%)	
Percentage of SU beds occupied by TIA patients (B5a)	0.0% (0.0-3.4%)	
Ratio of any SU beds to stroke inpatients	1.15 (1.00-1.44)	

Annual stroke caseload

Comment: Over 91,000 patients were admitted with stroke to hospitals in England, Wales and Northern Ireland between 1 April 2011 and 31 March 2012 according to the audit data. Of these, 83,739 were admitted to sites in England; this compares to 84,459 according to HES data for the same period. The annual activity of sites varies considerably ranging from less than 50 to nearly 2000 admissions per site.*

	National (190 sites)		Your site
	National total	Median (IQR)	
Number of patients admitted with stroke per site in financial year 1 April 2011 – 31 March 2012 (QB6)	91,254	413 (293-602)	



*HES data based on ICD10 codes I61, I62 and I63.

3.2 Presentation, assessment and initial treatment

The denominator for this section is 176 sites which provide care to patients in the first 72 hours after stroke.

3.2.1 Presentation at hospital (Q1.1, Q1.2, Q1.3)

NICE Quality Standard*:* People seen by ambulance staff outside hospital, who have sudden onset of neurological symptoms, are screened using a validated tool to diagnose stroke or transient ischaemic attack (TIA). Those people with persisting neurological symptoms who screen positive using a validated tool, in whom hypoglycaemia has been excluded, and who have a possible diagnosis of stroke, are transferred to a specialist acute stroke unit within 1 hour.

Comment: The vast majority of ambulance services now use the FAST test to identify patients with stroke and transport FAST-positive patients urgently to hospital.

Ambulance	National (176 sites)	Your site
Arrangements in place with local ambulance services to FAST-Track (rapid blue light transfer to hospital) patients presenting with acute stroke who may be appropriate for thrombolysis (Q1.2)	98% (172)	
There is an agreed pathway for ambulance clinicians to transport appropriate patients directly to a stroke unit (Q1.3)	29% (51)	

3.2.2 Use of telemedicine (Q1.4)

National clinical guideline recommendation: A telemedicine service in an acute stroke unit should consist of:
- a video link which enables the stroke physician to observe a clinical examination and/or
- a telephone which enables the stroke physician to discuss the case with a trained assessing clinician and talk to the patient and carer directly.

All telemedicine services should have a link which enables the stroke physician to review radiological investigations remotely.

Comment: The use of telemedicine has grown enormously since the last audit with 59% of all 176 sites (103/176) which treat patients in the first 72 hours after stroke now using telemedicine to enable remote viewing of images and 46% of sites (81/176) using video-enabled clinical assessment. 39% of sites (69/176) have a telemedicine rota with other hospitals for acute care.

Telemedicine (Q1.4)	National		Your site
	2010 (201sites)	(176 sites)	
Stroke unit uses telemedicine to allow remote access for management of acute stroke care.	33% (67)	61% (107)	
If YES			
Remote viewing for brain imaging is used	100% (67)	96% (103/107)	
Video enabled clinical assessment is used	24% (16/67)	76% (81/107)	
There is a telemedicine rota in operation with other hospitals	NA	64% (69/107)	

3.3 Thrombolysis for stroke (Q1.5, Q1.6, Q1.12, Q1.12(a) and Q1.13)

Denominators for this section	
N sites providing care for patients in the first 72 hours	176
N sites currently providing thrombolysis onsite	156
N sites providing 24/7 thrombolysis onsite or through local arrangements	159
N sites providing 24/7 thrombolysis onsite	131
N sites providing <24/7 thrombolysis onsite	45
N sites with consultant on thrombolysis rota	153

NICE recommendations: Alteplase is recommended for the treatment of acute ischaemic stroke when used by physicians trained and experienced in the management of acute stroke. It should only be administered in centres with facilities that enable it to be used in full accordance with its marketing authorisation. (Alteplase TA122 2007).

Alteplase should be administered only within a well organised stroke service with:

- staff trained in delivering thrombolysis and in monitoring for any complications associated with thrombolysis
- level 1 and level 2 nursing care staff trained in acute stroke and thrombolysis
- immediate access to imaging and re-imaging, and staff trained to interpret the images.

Staff in A&E departments, if appropriately trained and supported, can administer alteplase for the treatment of acute ischaemic stroke provided that patients can be managed within an acute stroke service with appropriate neuroradiological and stroke physician support.

Comment: The most dramatic change in stroke services over recent years has been the increase in access to thrombolysis. 89% of sites now offer a thrombolysis service of some sort. 74% are now offering an onsite service 24 hours a day seven days a week. A further 7% had arrangements with another local hospital to provide out of hours cover and 9% had no onsite service but arrangements for cover at all times from a neighbouring site. Only 15 of the 45 sites that did not offer 24/7 onsite thrombolysis did not have an arrangement with the ambulance service to bypass their hospital where patients might benefit from thrombolysis to cover the 24 hour period and only 4 sites had no system in place at all to be able to offer their local population thrombolysis at least for part of the week. Of those sites that are treating patients with thrombolysis the median number of such patients treated in the previous year was 33 or 6.7% of all stroke patient admitted.

Thrombolysis availability	National (176 sites)		Your site
Thrombolysis currently provided for stroke patients in your site (Q1.5)	89%	156	

Level of Thrombolysis service (Q1.8, Q1.13d)

The table below summarises the service available be it on-site only or in collaboration with neighbouring sites.

Thrombolysis service offered	National (176 sites)		Your site
• 24/7 service provided on-site	74%	(131)	
• Less than 24/7 service provided on-site but a 24/7 service provided overall involving local arrangements	7%	(13)	
• No on-site service but a 24/7 service provided involving local arrangements	9%	(15)	
• Less than 24/7 service provided on-site, with no local arrangements	7%	(12)	
• Less than 24/7 service provided overall including local arrangements	1%	(1)	
• No provision at all	2%	(4)	

Level of thrombolysis service offered*		National (176 sites)	
Weekdays	24 hours per day	90%	(159)*
	9-23 hours per day	3%	(5)
	1-8 hours per day	5%	(8)
	0 hours per day	2%	(4)
Saturdays	24 hours per day	90%	(159)*
	9-23 hours per day	2%	(3)
	1-8 hours per day	1%	(2)
	0 hours per day	7%	(12)
Sundays / Bank Holidays	24 hours per day	90%	(159)*
	9-23 hours per day	2%	(3)
	1-8 hours per day	1%	(2)
	0 hours per day	7%	(12)

*These 159 sites provided a 24/7 service either onsite (n=131) or through local arrangements (n=28)

Change over time	National	
Level of thrombolysis service offered	2010 (201 sites)	2012 (176 sites)
24/7 service provided either on-site or off-site	50%	90%
24/7 service provided on-site	28%	74%
No provision at all	12%	2%

Joint arrangements (Q1.12, Q1.13)

131 sites currently provided a 24/7 on-site thrombolysis service. The other 45 sites were asked about arrangements to provide cover.

	National (45 sites)		Your site
Your hospital has a formal bypass arrangement with the local ambulance service to take stroke patients to a hospital where a thrombolysis service is available (Q1.12)	67%	(30/45)	
(If YES), Start date of this arrangement (Q1.12a)	2012 2011 2010 Pre 2010	(2) (8) (6) (14)	
There is an agreement with (an)other site(s) to provide thrombolysis for patients during the hours when your site does not provide it (Q1.13)	64%	29/45	

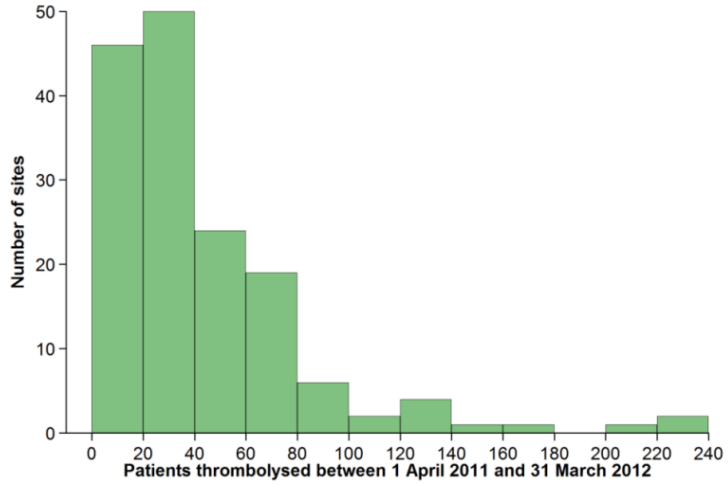
Out of the 29 sites which have a thrombolysis agreement, 14 provide some thrombolysis onsite. 6 out of these 14 sites have a joint on call medical rota for thrombolysis. The other 15 (out of 29) sites, which provide no onsite thrombolysis, were not asked about the joint on call medical rota.

Number of patients thrombolysed (Q1.6, QB6)

	National (156 sites)	Your site
Number of patients thrombolysed across your site from 1 April 2011 – 31 March 2012 (Q1.6)	Median 33, IQR (17-56) None 1, Total 6604	
Number of patients thrombolysed from 1 April 2011 – 31 March 2012 (Q1.6) AS A PERCENTAGE OF the total number of patients admitted with stroke between 1 April 2011 – 31 March 2012 (QB6)	Median 6.7% IQR (4.5-10.1%), n=156 sites	

Proportion of patients thrombolysed where a 24/7 thrombolysis service is provided on-site	National (131)
<3%	8% (11)
3 - <6%	25% (33)
6 - <10%	36% (47)
≥10%	31% (40)

Number of patients thrombolysed across site (n=156)



Patient assessment for on-site thrombolysis (Q1.9)

Patient assessment for thrombolysis		National (156 sites)		Your site
'Normal Hours' (up to and including 10 consecutive hours on weekdays)	Consultant physician	73%	(114)	
	Registrar	57%	(89)	
	Lower grade doctor	18%	(28)	
	Stroke nurse or therapist band 8	11%	(17)	
	Stroke nurse or therapist band 7	44%	(69)	
	Stroke nurse or therapist band 6	39%	(61)	
	Stroke nurse or therapist band 5	5%	(8)	
'Out of Hours' (Weekend/ Bank Holidays and more than 10 hrs weekdays)	Consultant physician	40%	(63)	
	Registrar	63%	(98)	
	Lower grade doctor	19%	(30)	
	Stroke nurse or therapist band 8	4%	(7)	
	Stroke nurse or therapist band 7	19%	(29)	
	Stroke nurse or therapist band 6	34%	(53)	
	Stroke nurse or therapist band 5	14%	(22)	

Decision making for thrombolysis (Q1.10)

Comment: Decisions about thrombolysis during normal working hours involve consultant stroke physicians in person in the vast majority of cases but that is not the situation out of hours where a consultant physician is only present in person in about 50% of instances with widespread use of telemedicine. In 12 sites the decision is made by a consultant solely with access to telephone which cannot be regarded as being as safe as being there or at least being able to see and talk to the patient through a video link and certainly not if there is no facility for the consultant to see the brain imaging.

Decision making for thrombolysis		National (156 sites)		Your site
'Normal Hours' (up to and including 10 consecutive hours on weekdays)	Consultant physician in person	98%	(153)	
	Consultant physician via telemedicine	12%	(19)	
	Consultant physician via telephone	16%	(25)	
	Registrar	11%	(17)	
	Lower grade doctor	1%	(1)	
	Stroke nurse band 8	1%	(2)	
	Stroke nurse band 7	1%	(2)	
	Stroke nurse band 6	3%	(5)	
	Stroke nurse band 5	0%	(0)	
	Consultant or stroke nurse band 8 as most senior	99%	(154)	
'Out of Hours' (Weekend/ Bank Holidays and more than 10 hrs weekdays)	Consultant physician in person	51%	(79)	
	Consultant physician via telemedicine	52%	(81)	
	Consultant physician via telephone	29%	(46)	
	Registrar	6%	(10)	
	Lower grade doctor	1%	(2)	
	Stroke nurse band 8	1%	(1)	
	Stroke nurse band 7	1%	(1)	
	Stroke nurse band 6	2%	(3)	
	Stroke nurse band 5	1%	(1)	
	Consultant or stroke nurse band 8 as most senior	91%	(142)	

Decision making for thrombolysis is undertaken solely by a consultant physician via telephone in one site during normal hours and in 12 sites 'out of hours'.

Specialty on a thrombolysis rota (Q1.11a)

Consultant level doctors on an on call thrombolysis rota	National (156 sites) Median	IQR	Your site
Number of consultant level doctors on a thrombolysis rota*	6	3-9	
Specialty on thrombolysis rota	% of sites	n of sites	Your site
Stroke physician	91%	(139/153)	
Neurologist	25%	(39/153)	
Care of the elderly	36%	(55/153)	
Cardiologist	4%	(6/153)	
General medicine physician	12%	(19/153)	
A&E	12%	(19/153)	
Acute Physician	16%	(25/153)	
Other	3%	(4/153)	

***3** of the 156 sites had no consultant level doctors on the thrombolysis rota

Comment: It does not matter what specialty label a consultant has when taking part in a thrombolysis rota; what matters is that the clinician has the expertise necessary to be able to make the correct decisions, even in unusual cases. This does require that they have the core training in the management of acute stroke (not just the process of giving thrombolysis), interpreting brain imaging and are seeing sufficient patients to maintain and build expertise. If all 437 stroke physicians on a thrombolysis rota were spread evenly across the 153 sites, there would be insufficient numbers of stroke physicians to run safe and legitimate rotas in all sites (an average of 2.9 physicians per site). Therefore either the number of sites delivering hyperacute stroke care needs to be reduced and this model is being adopted in some parts of the country, or stroke physicians need to spread their expertise across several sites using telemedicine or other specialists need to be trained to take part in the rotas. This latter solution is clearly being adopted by many – with 322 non stroke or neurology physicians providing cover.

Consultant specialty on thrombolysis rota	National (153 sites)	National total of consultants across sites
Stroke physician	91% (139)	437
Neurologist	25% (39)	154
Care of the elderly	36% (55)	144
Cardiologist	4% (6)	8
General medicine physician	12% (19)	69
A&E	12% (19)	56
Acute Physician	16% (25)	36
Other	3% (4)	9
Total		913

3.4 Stroke units

NICE Quality Standard: Patients with suspected stroke are admitted directly to a specialist acute stroke unit and assessed for thrombolysis, receiving it if clinically indicated.

Out of the 190 sites which participated in the audit, 189 had a stroke unit. Only 1 site, States of Guernsey Health and Social Services Department, did not.

Sites were asked about different 'types' of stroke unit beds. These 'types' were not mutually exclusive i.e. sites could have more than one type of bed. The terminology used in this section adheres to the following key.

Type 1: Beds *solely* for first 72 hours of care
Type 2: Beds *solely* for beyond 72 hours of care
Type 3: Beds for *both* first 72 hours of care and post 72 hour care

Denominators for this section	
N sites	190
N sites with a stroke unit	189
N sites with stroke unit that treat some or all patients in the first 72 hours	175
N sites with stroke unit that do not treat patients in the first 72 hours	14
N stroke units with Type 1 beds	83
N stroke units with Type 2 beds	93
N stroke units with Type 3 beds	122

Comment: All sites treating acute stroke patients in England, Wales and Northern Ireland now have a stroke unit. This is the first time this has been achieved in all 3 countries and is a major achievement considering where we were just a decade ago.

3.4.1 Service provided on stroke units in the first 72 hours after stroke (Q1.1)

176 sites which provide care to patients within the first 72 hours after stroke were asked about the service they provide during this acute phase. Of these 175 had a stroke unit.

Of these 175 sites, 83 have beds used solely for patients in the first 72 hours (Type 1 beds) and 122 have beds used for both pre- and post-72 hour care (Type 3 beds).

Patient admission to stroke unit (Q3.3, Q3.15)

Comment: Although there has been some improvement since the last audit, the frequency with which direct admission to the stroke unit is not possible remains of concern. Clearly there will be a small proportion of patients who need admission to alternative places within the hospital such as intensive care or coronary care units but apart from these instances there should be sufficient beds on the stroke unit to cope with peaks of demand. The 2012 organisational data indicate that the failure to admit to the stroke unit is likely to be poor bed management rather than insufficient bed numbers. It is good to see that virtually all units do now admit routinely 24 hours a day and at weekends.

Description of direct admission of patients to pre 72 hour stroke unit beds (Q3.3, 3.15)	National		Your site	
	Type 1 beds (83 SUs)	Type 3 beds (122 SUs)	Type 1 beds	Type 3 beds
All patients are always directly admitted	7% (6)	11% (14)		
All patients are directly admitted except for those who have another predominant acute condition which demands management on another ward	51% (42)	32% (39)		
All patients are directly admitted except for when there is not a bed available in the stroke unit	37% (31)	47% (57)		
Only those patients who may be eligible for thrombolysis are directly admitted	0% (0)	0% (0)		
Only those who receive thrombolysis are directly admitted	2% (2)	0% (0)		
Some patients are directly admitted but not as outlined in any of the categories above	2% (2)	10% (12)		
Patients are never directly admitted to the stroke unit	0% (0)	0% (0)		

Availability of direct admission to pre-72 hour patients to stroke unit beds (Q3.3a; 3.15a)	National		Your site	
	Type 1 beds (83 SUs)	Type 3 beds (122 SUs)	Type 1 beds	Type 3 beds
Weekdays (hours per day)				
• 8	2% (2)	2% (2)		
• 10	0% (0)	1% (1)		
• 24	98% (81)	98% (119)		
Saturdays (hours per day)				
• 0	2% (2)	2% (3)		
• 24	98% (81)	98% (119)		
Sundays /Bank Holidays (hours per day)				
• 0	2% (2)	2% (3)		
• 24	98% (81)	98% (119)		

Admission exclusion criteria for stroke units (Q3.2, Q3.14)

Comment: There has been a dramatic and welcome change in stroke unit admission policy since the last audit. Very few units now operate any exclusion policies based upon age, stroke severity, pre-existing dementia, or patients being assessed as having 'no rehabilitation potential' or needing end of life care. We just need to persuade the last 4 units that continue these policies of the error of their ways.

Stroke unit exclusion criteria (Q3.2a, 3.14a)	National Type 1 beds		Your site Type 1 beds	National Type 3 beds	
	2010 (75 SUs)	2012 (83 SUs)	2012	2010 (146 SUs)	2012 (122 SUs)
Type of exclusion criteria used	7% (5)	5% (4)		6% (9)	0% (0)
• Age-related	(0)	(0)		(0)	NA
• Stroke severity	(0)	(0)		(1)	NA
• Pre-existing dementia	(0)	(1)		(1)	NA
• No rehabilitation potential	(1)	(1)		(2)	NA
• End of life care	(5)	(3)		(8)	NA

Continuous physiological monitoring (Q3.4, Q3.16)

Continuous physiological monitoring	National		Your site	
	Type 1 beds (83 stroke units)	Type 3 beds (122 stroke units)	Type 1 beds	Type 3 beds
% of beds with Continuous physiological monitoring (ECG, oximetry, blood pressure) Q3.4, 3.16	Median 100% IQR 100-100%	Median 20% IQR 10-33%		

Ward rounds (Q3.5, Q3.17)

Comment: Just over half of beds used solely for patients in the first 72 hours have a daily ward round. Only 30% of units which do not have specifically designated beds for the early stages of admission have daily ward rounds.

Frequency of stroke consultant ward rounds (days per week) (Q3.5, 3.17)	National		Your site	
	Type 1 beds (83 stroke units)	Type 3 beds (122 stroke units)	Type 1 beds	Type 3 beds
National	7DAYS: 53% (44) 5-6DAYS: 42% (35) <5DAYS: 5% (4)	7DAYS: 30% (37) 5-6DAYS: 55% (67) <5DAYS: 15% (18)		

Acute criteria on stroke units (Q3.3-3.7, Q3.9; Q3.15-3.19, Q3.21)

National clinical guideline recommendation: All hospitals receiving acute medical admissions that include patients with potential stroke should have arrangements to admit them directly to a specialist acute stroke unit (onsite or at a neighbouring hospital) to monitor and regulate basic physiological functions such as blood glucose, oxygenation, and blood pressure.

Comment: Acute stroke patients should be managed on units staffed and equipped in a similar way to high dependency units. This includes daily consultant led ward rounds, ability to closely monitor physiological variables and access to immediate imaging when needed. 29% of stroke units with beds specifically for the first 72 hours fulfil all of the 7 quality criteria for high quality stroke units. 90% achieve 5 or more of these criteria. Performance is less good where there are not specifically designated beds for the early stages of admission

with the figures being 12% achieving all the standards and 88% achieving 5 or more standards. Perhaps most disappointing is that only 58% of units with beds specifically for the first 72 hours and 43% of units with combined beds have a policy for direct admission of patients from A&E and there are 20 units with hyper-acute beds that do not have access to continuous physiological monitoring. Overall these figures are a considerable improvement on previous audit results but do show that there is still more work to be done to ensure that all stroke patients are admitted to and managed on units fully compliant with the core standards.

Acute criteria for stroke unit beds	National (83 stroke units) Type 1 beds	National (122 stroke units) Type 3 beds
Number of Acute criteria	29% (24/83) with all 7 37% (31/83) with 6 24% (20/83) with 5 8% (7/83) with 4 1% (1/83) with 3 0% (0/83) with 2 0% (0/83) with <2 **YOUR SITE:**	12% (15/122) with all 7 38% (46/122) with 6 38% (46/122) with 5 11% (13/122) with 4 2% (2/122) with 3 0% (0/122) with 2 0% (0/122) with <2 **YOUR SITE:**

*acute stroke protocols/guidelines were only asked in relation to stroke unit beds, not MAU beds

Acute criteria for stroke unit beds	National (83 stroke units) Type 1 beds	National (122 stroke units) Type 3 beds
a) % of beds with **continuous physiological monitoring** (ECG, oximetry, blood pressure) Q3.4, Q3.16	Criterion is 100% of beds are monitored MET BY 76% (63/83) **YOUR SITE:**	Criterion is at least 1 monitored bed MET BY 84% (102/122) **YOUR SITE:**
b) **Immediate access to scanning** for urgent stroke patients Q3.6, Q3.18	YES for 100% (83/83) **YOUR SITE:**	YES for 99% (121/122) **YOUR SITE:**
c) **Admission procedure** to stroke unit Q3.3, Q3.15	58% (48/83) * **YOUR SITE:**	43% (53/122) * **YOUR SITE:**
d) **Specialist ward rounds on 7 days a week** Q3.5, Q3.17	Criterion 7 days a week for 53% (44/83) **YOUR SITE:**	Criterion 7 days a week for 30% (37/122) **YOUR SITE:**
e) **Acute stroke protocols/guidelines** for these beds Q3.7, Q3.19	YES for 99% (82/83) **YOUR SITE:**	YES for 99% (121/122) **YOUR SITE:**
f**) Nurses trained in swallow screening** Q3.9i, Q3.21i	At least one on at 10am, 7 days a week 99% (82/83) **YOUR SITE:**	At least one on at 10am, 7 days a week for 98% (119/122) **YOUR SITE:**
g) **Nurses trained in stroke assessment and management** Q3.9ii, Q3.21	At least one on at 10am, 7 days a week for 100% (83/83) **YOUR SITE:**	At least one on at 10am, 7 days a week for 95% (116/122) **YOUR SITE:**

* criterion is either i) All patients are always directly admitted or ii) All patients are directly admitted, except for those who have another predominant acute condition which demands management on another ward

The percentages in this table show how many sites, of those achieving a given number of the acute criteria, are achieving each individual criterion. The shading shows cells with less than 75% of sites achieving the criterion.

7 Acute criteria (Type 1 beds)

Number of criteria	Number of sites	All beds with monitoring	immediate access to scanning	Admission procedure	Specialist ward rounds 7 days a week	Acute stroke protocols/guidelines	Nurses trained in swallow screening	Nurses trained in stroke assessment & management
3	1 (1%)	0 (0%)	1 (100%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)	1 (100%)
4	7 (8%)	1 (14%)	7 (100%)	0 (0%)	0 (0%)	7 (100%)	6 (86%)	7 (100%)
5	20 (24%)	12 (60%)	20 (100%)	5 (25%)	3 (15%)	20 (100%)	20 (100%)	20 (100%)
6	31 (37%)	26 (84%)	31 (100%)	19 (61%)	17 (55%)	31 (100%)	31 (100%)	31 (100%)
7	24 (29%)	24 (100%)	24 (100%)	24 (100%)	24 (100%)	24 (100%)	24 (100%)	24 (100%)

For Type 1 beds

- Immediate access to scanning and nurses trained in stroke assessment and management on duty at 10am 7 days a week appear to be the most readily achieved.
- Direct admission to the stroke unit and specialist ward rounds 7 days a week appear to be the most difficult criteria to achieve.

7 Acute criteria (Type 3 beds)

Number of criteria	Number of sites	At least 1 monitored bed	immediate access to scanning	Admission procedure	Specialist ward rounds 7 days a week	Acute stroke protocols/guidelines	Nurses trained in swallow screening	Nurses trained in stroke assessment & management
3	2 (2%)	1 (50%)	2 (100%)	0 (0%)	0 (0%)	2 (100%)	0 (0%)	1 (50%)
4	13 (11%)	4 (31%)	13 (100%)	0 (0%)	0 (0%)	13 (100%)	13 (100%)	9 (69%)
5	46 (38%)	39 (85%)	45 (98%)	4 (9%)	7 (15%)	45 (98%)	45 (98%)	45 (98%)
6	46 (38%)	43 (93%)	46 (100%)	34 (74%)	15 (33%)	46 (100%)	46 (100%)	46 (100%)
7	15 (12%)	15 (100%)	15 (100%)	15 (100%)	15 (100%)	15 (100%)	15 (100%)	15 (100%)

For Type 3 beds

- Immediate access to scanning and having acute stroke protocols/guidelines for these beds appears to be the criteria most readily achievable but this is not universal.
- Direct admission to the stroke unit and specialist ward rounds 7 days a week appear to be the most difficult criteria to achieve.

3.4.2 Service provided on stroke units beyond the first 72 hours

Out of 189 sites with stroke units, 93 have beds used solely for patients beyond 72 hours (Type 2 beds).

Admission exclusion criteria (Q3.10)

Comment: Only 5 units with beds specifically for patients after 72 hours operate a policy to exclude particular sorts of patients. This is five too many but the situation has radically changed for the better since the last audit.

Stroke unit admission exclusion criteria (3.10a)	National Type 2 beds		**Your site Type 2 beds**
	2010 (87 units)	2012 (93 units)	**2012**
Type of exclusion criteria used	20% (17)	5% (5)	
• Age-related	(0)	(0)	
• Stroke severity	(4)	(0)	
• Pre-existing dementia	(3)	(1)	
• No rehabilitation potential	(11)	(3)	
• End of life care	(15)	(4)	

Ward rounds

Comment: The frequency of consultant ward rounds has increased on stroke units with Type 2 beds with the majority of units providing senior specialist review at least 5 days a week.

Frequency of stroke consultant ward rounds (days per week) Q3.11)	National Type 2 beds (93 units)	**Your site Type 2 beds**
	7DAYS: 12% (11) 5-6DAYS: 65% (60) <5DAYS: 24% (22)	

3.4.3 Staffing on ALL types of stroke units (Q3.8, Q3.9, Q3.12, Q3.13, Q3.20, Q3.21)

NICE Quality Standard: Patients with stroke are assessed and managed by stroke nursing staff and at least one member of the specialist rehabilitation team within 24 hours of admission to hospital, and by all relevant members of the specialist rehabilitation team within 72 hours, with documented multidisciplinary goals agreed within 5 days.

National clinical guideline recommendations: Each stroke rehabilitation unit and service should be organised as a single team of staff with specialist knowledge and experience of stroke and neurological rehabilitation including:

- consultant physician(s), nurses, physiotherapists, occupational therapists, speech and language therapists, dietitians, clinical psychologists, social workers
- easy access to services providing: pharmacy; orthotics; orthoptists; specialist seating; patient information; advice and support; and assistive devices.

The denominator for this section is 189 sites with a stroke unit. Nursing staff results were asked also by type of stroke unit bed. Data are presented as ratios of staff per ten stroke unit beds. For reference, the median (IQR) number of beds is given below.

Number of stroke unit beds	Total stroke units (189 sites)	Type 1 beds (83 sites)	Type 2 beds (93 sites)	Type 3 beds (122 sites)
Median (IQR)	25 (20- 34)	6 (4-11)	20 (15-26)	20 (15-27)

Number of nurses and care assistants (Q3.8, 3.12, 3.20)

Qualified nurses usually on duty at 10am		Total stroke units (189 sites)	Type 1 beds (83 sites)	Type 2 beds (93 sites)	Type 3 beds (122 sites)
Weekdays	Median (IQR) number of nurses	5 (4-6)	2 (1-3)	3 (2-4)	4 (3-4)
	Median (IQR) number per 10 beds	1.9 (1.5-2.2)	3.3 (2.5-5.0)	1.8 (1.3-2.2)	1.8 (1.4-2.7)
	Your site per 10 beds				
Saturdays	Median (IQR) number of nurses	4 (3-6)	2 (1-3)	3 (2-4)	3 (2-4)
	Median (IQR) number per 10 beds	1.8 (1.5-2.1)	3.3 (2.5-5.0)	1.6 (1.3-2.1)	1.7 (1.3-2.0)
	Your site per 10 beds				
Sundays / Bank Holidays	Median (IQR) number of nurses	4 (3-6)	2 (1-3)	3 (2-4)	3 (2-4)
	Median (IQR) number per 10 beds	1.8 (1.4-2.1)	3.3 (2.5-5.0)	1.6 (1.3-2.1)	1.7 (1.3-2.0)
	Your site per 10 beds				

Care assistants (CAs) usually on duty at 10am		Total stroke units (189 sites)	Type 1 beds (83 sites)	Type 2 beds (93 sites)	Type 3 beds (122 sites)
Weekdays	Median (IQR) number of CAs	4 (3-5)	1 (1-2)	3 (2-4)	3 (2-4)
	Median (IQR) per 10 beds	1.5 (1.1-2.0)	1.7 (1.0-2.5)	1.4 (1.1-2.0)	1.7 (1.3-2.0)
	Your site per 10 beds				
Saturdays	Median (IQR) number of CAs	4 (3-5)	1 (1-2)	3 (2-4)	3 (2-4)
	Median (IQR) number per 10 beds	1.5 (1.1-2.0)	1.7 (1.0-2.5)	1.4 (1.1-2.0)	1.6 (1.3-2.0)
	Your site per 10 beds				
Sundays / Bank Holidays	Median (IQR) number of CAs	4 (3-5)	1 (1-2)	3 (2-4)	3 (2-4)
	Median (IQR) number 10 beds	1.5 (1.1-2.0)	1.7 (1.0-2.5)	1.4 (1.1-2.0)	1.6 (1.3-2.0)
	Your site per 10 beds				

Nurses and care assistants usually on duty at 10am		Total stroke units (189 sites)	Type 1 beds (83 sites)	Type 2 beds (93 sites)	Type 3 beds (122 sites)
Weekdays	Median (IQR) number nurses and care assistants	8 (7-11)	3 (2-5)	6 (5-8)	7 (5-8)
	Median (IQR) number per 10 beds	3.4 (3.0-4.0)	5.0 (3.8-6.7)	3.2 (2.7-4.0)	3.3 (2.9-3.9)
	Your site per 10 beds				
Saturdays	Median (IQR) number nurses and care assistants	8 (6-11)	3 (2-5)	6 (5-7)	6 (5-8)
	Median (IQR) number per 10 beds	3.3 (2.9-3.8)	5.0 (3.8-6.3)	3.0 (2.5-3.8)	3.1 (2.8-3.6)
	Your site per 10 beds				
Sundays / Bank Holidays	Median (IQR) number nurses and care assistants	8 (6-11)	3 (2-5)	6 (5-7)	6 (5-8)
	Median (IQR) number per 10 beds	3.3 (2.9-3.8)	5.0 (3.8-6.3)	3.0 (2.5-3.8)	3.1 (2.8-3.6)
	Your site per 10 beds				

Number of specially trained nurses (Q3.9, 3.13, 3.21)

Nurses trained in **swallow screening** usually on duty at 10am		Total stroke units (189 sites)	Type 1 beds (83 sites)	Type 2 beds (93 sites)	Type 3 beds (122 sites)
Weekdays	Median (IQR) number of nurses	4 (2-5)	2 (1-3)	2 (1-3)	3 (2-4)
	Median (IQR) number per 10 beds	1.4 (1.0-2.0)	2.5 (2.0-4.0)	1.1 (0.7-1.9)	1.5 (1.0-2.0)
	Your site per 10 beds				
Saturdays	Median (IQR) number of nurses	3 (2-5)	2 (2-1)	2 (1-3)	2 (1-3)
	Median (IQR) number per 10 beds	1.3 (0.9-1.8)	2.5 (1.7-3.3)	1.1 (0.6-1.7)	1.3 (0.8-1.8)
	Your site per 10 beds				
Sundays / Bank Holidays	Median (IQR) number of nurses	3 (2-5)	2 (2-1)	2 (1-3)	2 (1-3)
	Median (IQR) number per 10 beds	1.3 (0.9-1.8)	2.5 (1.7-3.3)	1.1 (0.6-1.7)	1.3 (0.8-1.8)
	Your site per 10 beds				

Nurses trained in **stroke assessment and management** usually on duty at 10am		Total stroke units (189 sites)	Type 1 beds (83 sites)	Type 2 beds (93 sites)	Type 3 beds (122 sites)
Weekdays	Median (IQR) number of nurses	4 (3-6)	2 (1-3)	2 (1-4)	3 (2-4)
	Median (IQR) number per 10 beds	1.7 (1.1-2.1)	2.7 (2.2-4.4)	1.4 (1.0-2.0)	1.7 (1.0-2.0)
	Your site per 10 beds				
Saturdays	Median (IQR) number of nurses	4 (2-6)	2 (1-3)	2 (1-4)	3 (1-4)
	Median (IQR) number per 10 beds	1.5 (1.0-2.0)	2.5 (2.0-4.2)	1.4 (0.9-2.0)	1.4 (0.9-1.9)
	Your site per 10 beds				
Sundays / Bank Holidays	Median (IQR) number of nurses	4 (2-6)	2 (1-3)	2 (1-4)	3 (1-4)
	Median (IQR) number per 10 beds	1.5 (1.0-2.0)	2.5 (2.0-4.2)	1.4 (0.9-2.0)	1.4 (0.9-1.9)
	Your site per 10 beds				

Comment: There has been a fairly rapid growth in the number of services now offering 6 or 7 day services. 25% of sites now have physiotherapy on seven day rotas with a further 12% operating six days a week. The numbers are less for occupational therapy (16% and 8% respectively) and much less for speech and language therapy (3% and 2%). Nursing and therapy staffing levels have not changed substantially since the last audit and still show a wide variation between hospitals. It is of concern that there is not a substantial increase in staffing levels given the increase in 7 day working. This suggests that existing resources are being spread more thinly.

Whole Time Equivalents (WTE) per 10 stroke unit beds (Q4.3)		Qualified staff (189 sites)	Support staff (189 sites)	**Your site WTE per 10 beds**
Clinical psychology	N (% YES)	46% (86)	10% (18)	
	N (% 6 day service)	0% (0/86)	0% (0/18)	
	N (% 7 day service)	0% (0/86)	6% (1/18)	
	Median (IQR)	0.0 (0.0-0.4)	0.0 (0.0-0.0)	
	Median (IQR) per 10 beds	0.0 (0.0-0.1)	0.0 (0.0-0.0)	
Dietetics	N (% YES)	99% (187)	21% (40)	
	N (% 6 day service)	0% (0/187)	0% (0/40)	
	N (% 7 day service)	1% (2/187)	3% (1/40)	
	Median (IQR)	0.5 (0.3-0.8)	0.0 (0.0-0.0)	
	Median (IQR) per 10 beds	0.2 (0.1-0.3)	0.0 (0.0-0.0)	
Occupational therapy:	N (% YES)	100% (189)	89% (168)	
	N (% 6 day service)	8% (16/189)	6% (10/168)	
	N (% 7 day service)	16% (30/189)	16% (27/168)	
	Median (IQR)	3.0 (1.8-4.0)	1.0 (0.5-1.6)	
	Median (IQR) per 10 beds	1.1 (0.8-1.4)	0.4 (0.2-0.5)	
Physiotherapy	N (% YES)	100% (189)	91% (172)	
	N (% 6 day service)	12% (22/189)	6% (11/172)	
	N (% 7 day service)	25% (47/189)	20% (34/172)	
	Median (IQR)	3.2 (2.2-4.5)	1.0 (0.6-2.0)	
	Median (IQR) per 10 beds	1.3 (1.0-1.6)	0.5 (0.3-0.6)	
Speech and language therapy	N (% YES)	99% (187)	41% (77)	
	N (% 6 day service)	2% (4/187)	3% (2/77)	
	N (% 7 day service)	3% (6/187)	6% (5/77)	
	Median (IQR)	1.3 (0.6-2.0)	0.0 (0.0-0.4)	
	Median (IQR) per 10 beds	0.5 (0.3-0.7)	0.0 (0.0-0.1)	
Pharmacy	N (% YES)	93% (175)	63% (119)	
	N (% 6 day service)	6% (10/175)	6% (7/119)	
	N (% 7 day service)	8% (14/175)	6% (7/119)	
	Median (IQR)	0.4 (0.2-0.6)	0.1 (0.0-0.3)	
	Median (IQR) per 10 beds	0.1 (0.1-0.3)	0.1 (0.0-0.1)	
Nursing:	N (% YES)	100% (189)	100% (189)	
	N (% 6 day service)	0% (0/189)	0% (0/189)	
	N (% 7 day service)	98% (186/189)	99% (187/189)	
	Median (IQR)	20.0 (15.0-28.0)	13.6 (10.0-19.1)	
	Median (IQR) per 10 beds	8.0 (6.8-9.5)	5.2 (4.4-6.4)	

23% (44/189) sites have 6 or 7 day working for at least two of physiotherapy, occupational therapy and speech and language therapy.

Junior doctor time per week for all stroke units beds: (Q4.5)	National (189 sites)	**Your site per 10 beds**
N (% YES)	100% (189)	
Median (IQR), Total	26 (14-40), 6815	
Median (IQR) sessions per 10 beds	10.1 (7.3-14.4)	

Comment: There is good access to other important services such as social work, orthoptics and orthotics but this is less good for podiatry with only 57% of sites being able to access a service within 5 days. Access to psychology services has improved on stroke units with 52% of units having some resource.

Stroke unit has access within 5 days to (Q4.1):	National (189 sites)		Your site
• Social work expertise	97%	(183)	
• Orthotics	83%	(157)	
• Orthoptics	87%	(165)	
• Podiatry / Foot health	57%	(107)	

Access to clinical psychologist(s) (Q4.2)	National (189 sites)		Your site	
Access to Clinical Psychologist(s)	52%	(99)		
• If yes, within 5 days	75%	(74/99)		
Aspects of care are provided by the clinical psychologist:	Inpatients (99 sites)		Outpatients (99 sites)		Inpatients	Outpatients
• Mood assessment	88%	(87)	77%	(76)		
• Mood treatment	90%	(89)	81%	(80)		
• Higher cognitive function assessment	85%	(84)	75%	(74)		
• Higher cognitive function treatment	81%	(80)	74%	(73)		
• Non cognitive behavioural problems assessment and/or treatment	89%	(88)	77%	(76)		

3.4.5 Other aspect of stroke care across ALL stroke units

The denominator for this section is 189 sites with a stroke unit i.e. it is not broken down by different 'types' of stroke unit beds.

Patient mobility (Q4.4)

National Clinical Guideline: People with acute stroke should be mobilised within 24 hours of stroke onset, unless medically unstable, by an appropriately trained healthcare professional with access to appropriate equipment.

Comment: There is no need for patients to remain in bed until assessed by a physiotherapist. However, there are still 12% of units where this practice occurs. In these units it would appear that there is insufficient training for or trust in the nursing staff to be able to make a key decision with regards to a patients' rehabilitation.

Patient mobility (Q4.4)	National (189 sites)		Your site
Patients stays in bed until assessed by a physiotherapist	12%	(22)	

Multidisciplinary team meetings (Q4.6a-d)

Comment: At long last all stroke units hold at least weekly multidisciplinary meetings. 61% of sites hold more than two such meetings per week. It is of concern that only two thirds of sites include social workers in these meetings, and that in only a quarter of sites does the psychologist regularly attend. Both of these disciplines should be integral members of the team.

Team meetings		National (189 sites)		Your site
Frequency of formal team meetings for the interchange of information about individual patients on the stroke unit (Q4.6)	Less than once a week	0%	(0)	
	Once a week	24%	(46)	
	Twice a week	15%	(28)	
	More than twice a week	61%	(115)	
Disciplines that regularly attend the team meetings (Q4.6a)	Clinical Psychology	26%	(49)	
	Dietetics	60%	(114)	
	Medicine (Senior Doctor)	98%	(186)	
	Nursing	99%	(188)	
	Occupational Therapy	99%	(187)	
	Physiotherapy	99%	(187)	
	Social Work	66%	(124)	
	Speech & Language Therapy	89%	(168)	
All stroke unit patients are discussed in the meetings (Q4.6b)		99%	(187)	
Stroke inpatients on other wards ever discussed in these meetings (Q4.6c)*		80%	(110/137*)	
ALL stroke patients on other wards discussed in these meetings (Q4.6d)		83%	(91/110)	

* 52/189 sites (28%) answered 'Not applicable' as all stroke patients are always on the stroke unit and never on other wards. Of these 52 sites, 4 sites reported having patients on the medical assessment unit (MAU) on the day of the audit (QB3).

Palliative care (Q4.7)

National Clinical Guidelines:
Teams providing care for patients after stroke should be taught how to recognise patients who might benefit from palliative care. All staff caring for people dying with a stroke should be trained in the principles and practice of palliative care. All patients who are dying should have access to specialist palliative care expertise when needed. All patients who are dying should be given the opportunity of timely/fast-track discharge home or to a hospice or care home according to wishes of the patient and/or carers.

Comment: There appears to be good access to specialist palliative care expertise.

Palliative care	National (189 sites)		Your site
Palliative care patients treated on stroke units	99%	(188)	
If YES:			
• Liverpool Care Pathway used*	99%	(186/188)	
• Same day access to a specialist palliative care team on weekdays	95%	(178/188)	
• Same day access to a specialist palliative care team at the weekend	53%	(100/188)	

*or equivalent in Wales

Stroke Unit Trialists' Collaboration (SUTC) Key Characteristics of All Stroke Units

National clinical guideline recommendations: Patients who need ongoing inpatient rehabilitation after completion of their acute diagnosis and treatment should be treated in a specialist stroke rehabilitation unit, which should fulfil the following criteria:
• it should be a geographically identified unit
• it should have a coordinated multidisciplinary team that meets at least once a week for the interchange of information about individual patients
• the staff should have specialist expertise in stroke and rehabilitation
• educational programmes and information are provided for staff, patients and carers
• it has agreed management protocols for common problems, based on available evidence.

This section refers to all 189 stroke units. The Stroke Unit Trialists' Collaboration (SUTC) and subsequent papers produced by members of the group identified a number of features common to units participating in the randomised controlled trials of stroke unit care. In an attempt to identify whether hospitals describing themselves as having stroke units are meeting a basic standard, five features were included in the audit to define how such units are organised. These are listed in the next table.

Comment: We have used 5 characteristics to define the quality of the stroke unit. Overall the quality of stroke units has improved a little since 2010 with 43% achieving all of the 5 key quality criteria (from 38% in 2010) but the proportion with major flaws (scoring 3 or less) has actually increased from 11% to 13%. Of these 5 characteristics, the major area for improvement is 'formal links with patients and carers'. This may be considered a less important component of care than some of the others but we would suggest that it is critical for a stroke unit to perform effectively. Without direct involvement of patients and carers it is very unlikely that the unit will address their needs adequately. We consider this to be one of the major areas for improvement over the next 12 months.

Number of SUTC characteristics achieved	National	
	2010 (198 sites)	2012 (189 sites)
2	1 (1%)	3 (2%)
3	21 (11%)	21 (11%)
4	101 (51%)	83 (44%)
5	75 (38%)	82 (43%)

SUTC key characteristics		National 2010 (198 sites)	National 2012 (189 sites)	Your site 2012
Clinician: (Q7.1)	There are clinicians with specialist knowledge of stroke who are formally recognised as having principal responsibility for stroke services	100% (198)	100% (189)	
Formal links with patients and carers: (Q9.4i,ii,iii)	Stroke service has formal links with patients and carers organisations for communication on ALL of the following: • Service provision • Audit • Service reviews & future plans	43% (85)	53% (100)	
Multidisciplinary Team meetings: (Q4.6)	Formal team meetings, on average at least once a week for the interchange of information about individual patients on the stroke unit	99% (197)	100% (189)	
Patient information: (Q9.2a or Q9.2b)	Patient information literature displayed in unit/ward on the following: Patient versions of national or local guidelines/standards OR Patient information literature displayed in unit/ward on the following: Social Services local Community Care arrangements	93% (185)	95% (179)	
Continuing education: (Q8.4)	There is funding for external courses available for nurses and therapists AND At least ONE staff day was paid for between 1 April 2011 and 31 March 2012	88% (174)	81% (154)	
All 5 SUTC Key Characteristics		38% (75)	43% (82)	

The percentages in this table show how many sites, of those achieving a given number of the SUTC characteristics, are achieving each individual characteristic. The shading shows cells with less than 75% of sites achieving the characteristic.

Number of SUTC characteristics	Number of sites (189)	Clinical lead	Links to patients and carers	Team meeting	Patient info	Continuing education
2	3 (2%)	3 (100%)	0 (0%)	3 (100%)	0 (0%)	0 (0%)
3	21 (11%)	21 (100%)	1 (5%)	21 (100%)	16 (76%)	4 (19%)
4	83 (44%)	83 (100%)	17 (20%)	83 (100%)	81 (98%)	68 (82%)
5	82 (43%)	82 (100%)	82 (100%)	82 (100%)	82 (100%)	82 (100%)

From this table,

- Having a clinician and holding a multidisciplinary team meeting at least once a week appear to be most readily achievable characteristics.
- Formal links with patients and carers appears the characteristic appears to be the most difficult character to achieve.

3.5 Service provided on medical assessment units (MAUs) (Q2.1 – 2.9)

This section includes all 190 sites which participated in the audit i.e. it is unrelated to whether sites have a stroke unit or not.

Comment: One of the key findings from the 2010 audit was that too many patients were being managed initially on MAUs and the quality of care they received on those units was significantly lower than that offered to patients admitted directly to a stroke unit. This issue remains two years on although the numbers are reducing. On the day of the audit a total of 53 stroke patients were on an MAU across the 190 sites. 13% of all sites have a policy of directly admitting their patients to an MAU rather than a stroke unit. This is not a good model of care and certainly not supported by research evidence. Two thirds of sites (129) still use MAUs on occasion. Less than two thirds of these sites regularly have nurses on duty trained to perform screening of swallowing to assess whether patients can be fed and hydrated orally. Access to stroke medical specialists has improved a little with just under a quarter of these 129 units having 7 day a week access.

Service on general assessment wards	National (190 sites)		**Your site**
Are stroke patients ever in general assessment / decision beds e.g. MAU** (Q2.1)	68%	129	
Stroke patients in MAU** are seen by a stroke specialist consultant (Q2.6)	81%	104/129	
Number of days per week on which a stroke patient would be seen by a stroke specialist (N=104) (Q2.6(a))	ONE (4), TWO (4), THREE (3), FOUR (2), FIVE (57), SIX (3), SEVEN (31)		
System in place to make sure that there is always a nurse or therapist on duty in the MAU** who is trained and assessed as competent in the following: (Q2.7)			
Swallow screening	61%	79/129	
Stroke assessment and management	33%	42/129	
Of the stroke patients in the MAU** on the day of audit the length had they been there (Q2.2)		53 patients in MAU**	Patients in MAU
• Less than 24 hours	81%	43/53	
• 24-48 hours	17%	9/53	
• More than 48 hours	2%	1/53	
Number of beds in MAU** (Q2.3)	Median 32, IQR 24-48, National Total=4634		
Number of beds in MAU with continuous physiological monitoring (ECG, oximetry, blood pressure) (Q2.4)	Median 6, IQR 3-12, National Total=1229		
Immediate access to scanning (Q2.8)	98% (127/129)		
Policy for direct admission (Q2.9)	13% (24/190)		

**MAU used generically to include general assessment/decision beds

Comparison of acute criteria on stroke units and medical assessment units

As described on page 49, we have previously defined seven key criteria which we use to assess the quality of service of acute stroke units providing care in the first 72 hours.
We also analysed the number of these characteristics achieved by MAUs to compare against the quality of care provided on stroke units. MAUs were not asked about having acute stroke guidelines for their beds so they are scored out of 6 rather than 7 criteria.

Achievement of acute criteria	National		
	Type 1 beds (83 stroke units)	Type 3 beds (122 stroke units)	MAUs (129 units)
Number of acute criteria	29% (24/83) with all 7	12% (15/122) with all 7	2% (3/129) with all 6
	37% (31/83) with 6	38% (46/122) with 6	6% (8/129) with 5
	24% (20/83) with 5	38% (46/122) with 5	23% (30/129) with 4
	8% (7/83) with 4	11% (13/122) with 4	37% (48/129) with 3
	1% (1/83) with 3	2% (2/122) with 3	28% (36/129) with 2
	0% (0/83) with 2	0% (0/122) with 2	3% (4/129) with 1
	0% (0/83) with <2	0% (0/122) with <2	
	YOUR SITE:	**YOUR SITE:**	**YOUR SITE:**

** Refer to page 37 for definitions of the different types of SU beds*

3.6 Management of stroke services

This section includes all 190 sites which participated in the audit i.e. it is not dependent on whether a site has a stroke unit or not.

3.6.1 Investment in stroke specialist staff (Q7.1 – Q7.5, Q8.4)

This section reports on the number of whole time equivalents (WTEs) of staff.

Comment: There is a growing cohort of senior stroke staff who should be available to guide continuing improvements in stroke care. There is a paucity of very senior staff in dietetics and occupational therapy compared to the other professions. It is surprising given how few psychologists there are in stroke medicine that so many of them are employed at Band 8b and Band 8c; might more at a lower grade be a better investment? The number of stroke consultant programmed activities (PAs) has risen to a median of 20 per site and there are 49 sites with at least one specialist registrar in stroke.

WTE of stroke specialist staff (Q7.4)	Band 7 (190 sites)			Band 8a (190 sites)		
	Median (IQR)	YES (>0)	**Your site**	YES (>0)		**Your site**
Clinical Psychologists	0.0 (0.0-0.0)	9%	(18)	17%	(32)	
Dietitian	0.0 (0.0-0.5)	28%	(53)	2%	(3)	
Nurses	1.0 (1.0-2.0)	92%	(174)	17%	(33)	
Occupational Therapists	1.0 (0.5-1.0)	79%	(151)	15%	(28)	
Physiotherapists	1.0 (1.0-1.0)	86%	(164)	24%	(46)	
Speech and Language Therapists	1.0 (0.0-1.0)	72%	(137)	22%	(42)	

Note that the median (IQR) WTE was 0 (0-0) for all staff in Bands 8a, 8b and 8c.

WTE of stroke specialist staff Q7.4)	Band 8b (190 sites) YES (>0)		Your site	Band 8c (190 sites) YES (>0)		Your site
Clinical Psychologists	6%	(12)		11%	(20)	
Dietitian	0%	(0)		0%	(0)	
Nurses	7%	(13)		3%	(5)	
Occupational Therapists	2%	(3)		0%	(0)	
Physiotherapists	3%	(5)		0%	(0)	
Speech and Language Therapists	1%	(1)		1%	(1)	

	National (190 sites)	Your site
Accredited specialist registrar in post registered for stroke specialist training (Q7.2)	26% (49)	

Programmed activities (Q7.3, 7.3a)	National (190 sites)	Your site
Number of programmed activities (PAs) for stroke consultant physicians: Median (IQR), Total	20 (11-27), 4068 1 site had 0 PAs	
• Number of these are PAs for direct clinical care for stroke: Median (IQR), Total	14 (8-20), 2926 from 189 sites	

Education for staff	National (190 sites)		Your site
Funding for external courses available for nurses and therapists (Q8.4)	88%	(168)	Yes
Number of staff days paid for between 1 April 2011 and 31 March 2012 (Q8.4a)	Median: 21 days IQR: (9-42) TOTAL: 6308		
At least 10 study days funded between 1 April 2011 - 31 March 2012	65%	124	

3.6.2 Quality Improvement (Q8.1-8.3, Q8.5-8.8)

National Clinical Guideline: Clinical services should take responsibility for all aspects of data collection: keeping a stroke register of all patients admitted to their organisation with a stroke, and providing leadership in clinical audit. Clinicians in all settings should participate in national stroke audit so that they can compare the clinical and organisational quality of their services against national data and use the results to plan and deliver service improvements.

Comment: 93% of sites have a strategic group responsible for stroke with many of these groups containing representatives from the board, stroke networks and commissioners. Almost three quarters of groups include patient representation. In at least two thirds of sites the audit results are considered at board level.

Quality Improvement – Management		National (190 sites)		Your site
Stroke service report prepared for trust board between 1 April 2011 and 31 March 2012 (Q8.1)		93%	(177)	
Level of management that takes responsibility for follow-up of results and recommendations of the National Sentinel Stroke Audit (Q8.2)	• Executive on the Board	66%	(126)	
	• Non-executive on the Board	12%	(22)	
	• Chairman of Clinical Governance (or equivalent)	33%	(62)	
	• Directorate Manager	82%	(155)	
	• Stroke Clinical Lead	85%	(162)	
	• Other**	31%	(58))	
	• No specific individual	0%	(0)	
	• Not known	0%	(0)	

Quality Improvement – Management		National (190 sites)		Your site
Strategic group responsible for stroke (Q8.3):		93%	(176)	Yes
What does it include (Q8.3a)	• Ambulance trust representative	53%	(93/176)	
	• Clinician	100%	(176/176)	
	• Patient Representative	73%	(128/176)	
	• Commissioner	76%	(134/176)	
	• Social Services	61%	(107/176)	
	• Stroke Network Representative	81%	(142/176)	
	• Trust board member	51%	(89/176)	
Total number included in the group	• One*	3%	(6/176)	
	• Two	3%	(5/176)	
	• Three	10%	(18/176)	
	• Four	21%	(37/176)	
	• Five	20%	(36/176)	
	• Six	27%	(47/176)	
	• Seven	15%	(27/176)	
Median number included in group		5		

*These 6 groups were clinicians
**Others comprise different levels of management and clinicians

Quality Improvement – Management	National (176 sites*)		Your site
System in place that provides feedback on individual cases to the referring ambulance clinicians (Q8.5)	44%	(77)	

*14 sites which do not provide care for patients in the first 72 hours are excluded from this denominator.

Comment: A third of sites have not produced a report on patients' views of the clinical service over the past year and a quarter either never survey patient views or do so less than once a year. Achieving 100% on this standard should be one of the key aims for the next year. The new stroke audit (SSNAP) will in due course include patient and carer reported outcome and experience measures but until then it is the responsibility of each individual trust to find a way to seek patient views and act appropriately on them.

Quality improvement – patient views		National (190 sites)		Your site
Frequency of a formal survey seeking patient/carer views on stroke services (Q8.6)	Never	8%	(16)	
	Less than once a year	16%	(30)	
	1-2 times a year	24%	(45)	
	3-4 times a year	5%	(10)	
	More than 4 times a year	11%	(20)	
	Continuous (every patient)	36%	(69)	
Report produced between 1 April 2011 and 31 March 2012 which analysed the views of stroke patients (Q8.7)		68%	(129)	
Patient surveys and/or reports discussed in a formal meeting and plans devised to act upon findings (Q8.8)		82%	(155)	

3.6.3 Leadership (Q7.1, Q8.12-8.23)

For the first time, questions on leadership were included in the acute organisational audit. This is due to ongoing collaboration between the RCP Stroke Programme and the European Implementation Score Collaborative Group (EIS) (http://www.eisproject.com/). This group has reviewed the literature on the importance of leadership in the implementation of guidelines. (See Boaz A, Baeza J, Fraser A, (2011). *Effective implementation of research into practice: an overview of systematic reviews of the health literature*. *BMC Res Notes. 2011* http://www.biomedcentral.com/1756-0500/4/212 Doumit G, Gattellari M, Grimshaw J, O'Brien MA: Local opinion leaders: effects on professional practice and health care outcomes [update of Cochrane Database Syst Rev. 2000;(2):CD000125; PMID: 10796491]. [Review] [54 refs]. Cochrane Database of Systematic Reviews (1) 2007, CD000125).

Comment: Physicians are by far the dominant profession adopting leadership roles in stroke services with only 4 sites allocating the role to a nurse and none to therapists. One of the key factors in a successful service is the presence of strong leadership and finding the natural leader in a service should be a key role for trust managers. These figures suggest that maybe these managers should be more adventurous and less bound by traditional medical hierarchy when structuring their service. In most cases it does appear that the service leader is given appropriate time and resource to fulfil the role although it is amazing that in a small number of sites there are no meetings with trust management, neighbouring trust clinicians or any strategic planning meetings!

	National (190 sites)		**Your site**
Clinician with specialist knowledge of stroke formally recognised as having principal responsibility for stroke services (Q7.1)	100%	(190)	
• Doctor	98%	(186)	
• Nurse	2%	(4)	
• Therapist	0%	(0)	

		National (190 sites)		**Your site**
Frequency of meetings between clinical leader and senior management (director level) within the trust? (Q8.12)	Never	2%	(4)	
	Annually	7%	(13)	
	Twice a year	6%	(11)	
	Quarterly	25%	(47)	
	Monthly	61%	(115)	
Frequency of meetings between clinical leader and local clinicians from neighbouring trusts? (Q8.13)	Never	4%	(8)	
	Annually	1%	(1)	
	Twice a year	4%	(8)	
	Quarterly	60%	(114)	
	Monthly	31%	(59)	
Frequency of leadership meetings in which strategic planning is discussed? (Q8.14)	Never	4%	(8)	
	Annually	2%	(3)	
	Twice a year	5%	(9)	
	Quarterly	36%	(68)	
	Monthly	54%	(102)	

Aspects of leadership	National (190 sites)		Your site
Forum for staff to communicate with leaders (Q8.15)	94%	(178)	
Mechanisms for leader to act upon team performance measurements (Q8.16)	99%	(188)	
Team mission statement (Q8.17)	60%	(114)	
Leader member of an external stroke specialist advisory groups (Q8.18)	79%	(151)	
Protected time for clinical leader to promote self-development (Q8.20)	67%	(128)	
Senior staff given protected time to teach junior staff (Q8.21)	69%	(132)	
Leader facilitates dissemination of research (Q8.22)	86%	(163)	
Leader has protected time for academic research (Q8.23)	46%	(87)	

	National	(163 sites)*	Your site
Link between stroke service income and performance quality explained to staff (Q8.19)	85%	(138)	

*This denominator includes sites in England only where there is financial remuneration for performance

3.6.4 Research capacity (Q8.10 – 8.12)

Comment: *The Stroke Research Network has been a dramatic success with 92% of sites registered for at least one research study and with the median being 4 per site. 163 sites have an individual available to help with data collection (median of 0.8 WTE per site).*

Stroke research studies	National (190 sites)			Your site
	Median (IQR)	1 or more	3 or more	
Number of stroke studies registered with your Research & Development Department (on 2 July 2012) (Q8.10)	4 (2-8)	92% (174)	74% (141)	

Total number of WTEs allotted for stroke data collection (Q8.11)	National (190 sites)	Your site
Median (IQR), Total	0.8 (0.3-1.0) 184	

27/190 sites (14%) have 0 WTEs for stroke data collection.

Comment: The burden of data collection, especially for larger units, is substantial. However, data collected by national audit is extremely valuable and the process of collecting and reviewing data is a useful way of monitoring services. Clinicians should be involved in this process. As we move towards continuous data collection, it is important to get the balance right so that clinicians are not spending excessive amounts of time routinely entering data. Trusts should support such activity.

WTEs for stroke data collection (Q8.11(a))	National (163 sites)		Your site
Doctor	25%	(40)	
Manager	13%	(22)	
Nurse	60%	(97)	
Therapist	15%	(24)	
Clinical Audit/Clinical Governance	17%	(27)	
Data clerk/analyst with specific stroke responsibilities	62%	(101)	
Data clerk/analyst with general audit responsibilities	14%	(23)	

3.7 Patient support and communication

National Clinical Guideline:
Hospital services should have a protocol, locally negotiated, to ensure that before discharge occurs:
- patients and carers are prepared, and have been fully involved in planning discharge
- general practitioners, primary healthcare teams and social services departments (adult services) are all informed before, or at the time of, discharge
- all equipment and support services necessary for a safe discharge are in place
- any continuing specialist treatment required will be provided without delay by an appropriate coordinated, specialist multidisciplinary service
- patients and carers are given information about and offered contact with appropriate statutory and voluntary agencies.

Comment: Involvement of patients in different aspects of the service has become more widespread, both in terms of patients being given information routinely about their own care and in developing the clinical and research aspects of the service. However there are still some services where the value of patient involvement is clearly still not recognised. At a minimum all patients should be provided with a named contact when care is transferred out of the hospital.

Discharge planning

Discharge planning (Q9.3 – 9.6)	National (190 sites)		Your site
Patients given a personalised rehabilitation discharge plan	86%	(163)	
Stroke service has formal links with patients and carers organisations for communication on any of the following:	88%	(167)	
• Service provision	86%	(163)	
• Audit	53%	(101)	
• Service reviews and future plans	78%	(149)	
Communication on all 3 of the above	53%	(100)	
• Developing research	48%	(91)	
Stroke service has formal links with community user groups for stroke	89%	(169)	
Policy to give patients a named contact on transfer from hospital to community	76%	(145)	

Support for working age patients (Q7.5)

Comment: 68% of sites say they have a service to support return to work and 50% provide vocational rehabilitation. This is at odds with surveys of patients that suggest that very few get access to this sort of help after discharge from hospital; if the numbers are right then this is a welcome improvement and needs to be spread even more widely.

Support for working age patients	National (190 sites)		Your site
Provision of service which actively supports stroke patients to remain in, return to or withdraw (if appropriate) from work? (Q7.5a)	68%	(130)	
Provision of service which actively provides educational or vocational training? (Q7.5b)	50%	(95)	

Communication with patients and carers (Q9.1-Q9.2)

NICE Quality Standard: Carers of patients with stroke are provided with a named point of contact for stroke information, written information about the patient's diagnosis and management plan, and sufficient practical training to enable them to provide care

Communication with patients and carers (Q9.1-9.2)	Stroke unit* (190 sites)	**Stroke unit (Your site)**	Outpatients (190 sites)	**Outpatients (Your site)**
The organisation of the ward/unit enables patients to have access to their management plan	82% (155)		74% (140)	
Patient information literature displayed in ward/unit:				
• Patient versions of national or local guidelines/standards	82% (155)		63% (119)	
• Social services local community care arrangements	88% (168)		70% (133)	
• The Benefits Agency	86% (164)		72% (136)	
• Information on stroke	100% (190)		93% (176)	
• Secondary prevention advice	98% (187)		92% (175)	

* The one site which did not have a stroke unit is included in the denominator for this question

3.8 Pathway at discharge

NICE Quality Standard: All patients discharged from hospital who have residual stroke-related problems are followed up within 72 hours by specialist stroke rehabilitation services for assessment and ongoing management.

3.8.1 Specialist Early Supported Discharge Team (ESD) (Q5.1)

National Clinical Guideline: Provide early supported discharge to patients who are able to transfer independently or with the assistance of one person. Early supported discharge should be considered a specialist stroke service and consist of the same intensity and skillmix as available in hospital, without delay in delivery.

An early supported discharge team is a multidisciplinary team which provides rehabilitation and support in a community setting with the aim of reducing the duration of hospital care for stroke patients. A stroke/neurology specific team is one which treats stroke patients either solely or in addition to general neurology patients.

Comment: There has been a welcome substantial growth in the number of services providing early supported discharge after stroke up from 44% in 2010 to 66% in this audit. 85% of these services are stroke specific with the remaining 15% also taking other neurology patients. All ESD teams have physiotherapy and occupational therapy and most have speech and language therapy. Many also have access to a range of other specialties. There are however a few services that appear to have waiting times of over 2 weeks even for the core members of the team which would render the 'early supported discharge' team open to being taken to court under the Trade Descriptions Act! Overall a median of 30% of patients are treated by these teams making them an extremely useful adjunct to the specialist hospital service.

Specialist early supported discharge (ESD) (Q5.1, 5.1a, 5.1b)		National (190 sites)	**Your site**
Access to stroke / neurology specific ESD multidisciplinary team		66% (126)	
If yes, percentage of catchment area with access to this team		Median 100% IQR: 76-100% 72/126 with 100%	
The team treats	Only stroke patients	85% (107/126)	
	Stroke and general neurology patients	15% (19/126)	

Professional group included in team (Q5.1c):	Team (126 sites)		Current approximate waiting time*				**Your site**
			< 48 h	49h – 7 days	8 – 14 days	> 14 days	
Clinical Psychologist	37%	(47)	9	21	5	12	
Dietitian	33%	(42)	16	16	6	4	
Occupational therapist	100%	(126)	112	13	0	1	
Physiotherapist	100%	(126)	112	13	0	1	
Social worker	34%	(43)	29	12	1	1	
Specialist doctor	30%	(38)	20	13	2	3	
Specialist nurse	59%	(74)	61	11	2	0	
Speech & Language therapist	92%	(116)	74	35	4	3	
Generic therapy worker	80%	(101)	85	15	0	1	
Family / Carer support worker	52%	(65)	24	24	8	9	
Four or more specialties including OT, PT, SLT on the team %YES	89%	(112)					

*Answers here were for the PCT/borough that sites received most patients from

90% of sites with access to specialist ESD (113/126) had a waiting time of less than 48 hours for at least one of physiotherapy, occupational therapy or speech and language therapy.

	National (126 sites)	**Your site**
Number of stroke patients who received treatment from the team at home in the last week** (Q5.1d)	Median: 11 IQR: 4-22 TOTAL: 1886	
Percentage of your patients receive ESD from stroke/neurology specific team (Q5.1e)	Median: 30% IQR: 18-49%	
Delays in discharging patients suitable for ESD because of delays in ESD response time/ therapy assessments/ social work/ home adaptations. (Q5.1f)	49% (62/126)	

** Each patient can only be counted once no matter how many times they were visited

3.8.2 Non-Specialist Early Supported Discharge Team (Q5.2)

Comment: 26% of sites have access to non-specialist early supported discharge. The evidence suggests that this is not as effective as a specialist service and that outcomes are likely to be better if people remain on the stroke unit rather than being discharged for to non-specific ESD teams for rehabilitation.

Non-specialist early supported discharge (ESD) (Q5.2, 5.2a)	National (190 sites)	Your site
Access to non - specialist early supported discharge multidisciplinary team	26% (50)	
If yes, percentage of catchment area with access to this team	Median 100% IQR: 66-100% 30/50 with 100%	

Of the 50 sites with non-specialist ESD teams, 29 sites also have access to a specialist team. 21 sites use a non-specialist team exclusively.

Professional group included in team (Q5.2b)	Team (**50** sites)		Current approximate waiting time*				
			< 48 h	49h – 7 days	8 – 14 days	> 14 days	Your site access
Clinical Psychologist	8%	(4)	0	3	0	1	
Dietitian	28%	(14)	1	12	1	0	
Occupational therapist	100%	(50)	31	17	1	1	
Physiotherapist	100%	(50)	31	18	1	0	
Social worker	60%	(30)	13	16	1	0	
Specialist doctor	26%	(13)	9	3	1	0	
Specialist nurse	68%	(34)	19	13	0	2	
Speech & Language therapist	42%	(21)	5	11	3	2	
Generic therapy worker	92%	(46)	31	14	0	1	
Family / Carer support worker	32%	(16)	4	10	1	1	
Four or more specialties including OT, PT, SLT on the team %YES	40%	(20)					

*Answers here were for the PCT/borough that sites received most patients from

	National (50 sites)	Your site
Number of stroke patients who received treatment from the team at home in the last week * (Q5.2c)	Median: 2 IQR: 0-6 TOTAL: 276	
Percentage of your patients receive ESD from a generic team (Q5.2d)	Median: 10% IQR: 3-25%	
Delays in discharging patients suitable for ESD because of delays in ESD response time/ therapy assessments/ social work/ home adaptations. (Q5.2e)	64% (32)	

* Each patient can only be counted once no matter how many times they were visited

3.8.3 Longer Term Specialist Community Rehabilitation Team (Q.5.3)

Comment: While excellent progress has been made in developing inpatient and early supported specialist services the same cannot be said of longer term community rehabilitation which is just as important, if not more so. Over 40% of acute sites are sending their patients home without access to any specialist neurological rehabilitation. The teams that do exist are handling very large caseloads with a median of 18 patients seen in the previous week. Many of the teams have unacceptably long waiting lists.

Specialist community rehabilitation team (Q5.3, 5.3a, 5.3b)		National (190 sites)	Your site
Access to stroke / neurology specialist community rehabilitation team for longer-term management		57% (108)	
If yes, percentage of catchment area with access to this team		Median 100% IQR: 85-100% 74/108 with 100%	
The team treats	Only stroke patients	40% (43/108)	
	Stroke and general neurology patients	60% (65/108)	

Professional group included in team (Q5.3c):	Team (108 sites)		Current approximate waiting time*				Your site
			< 48 h	49h – 7 days	8 – 14 days	> 14 days	
Clinical Psychologist	48%	(52)	2	9	9	32	
Dietitian	38%	(41)	5	17	11	8	
Occupational therapist	99%	(107)	24	39	17	27	
Physiotherapist	99%	(107)	25	42	10	30	
Social worker	29%	(31)	7	13	3	8	
Specialist doctor	28%	(30)	8	12	2	8	
Specialist nurse	55%	(59)	25	21	5	8	
Speech & Language therapist	82%	(89)	21	32	10	26	
Generic therapy worker	81%	(87)	26	31	10	20	
Family / Carer support worker	45%	(49)	13	23	8	5	
Four or more specialties including OT, PT, SLT on the team %YES	81%	(87)					

*Answers here were for the PCT/borough that sites received most patients from

	National (108 sites)	Your site
Number of stroke patients who received treatment from the team at home in the last week *(Q5.3d)	Median: 18 IQR: 6-32 TOTAL: 2631	
Delays in discharging patients for longer term community management because of delays in therapy assessments/ social work/ home adaptations (Q5.3e)	53% (57/108)	

* Each patient can only be counted once no matter how many times they were visited

3.8.4 Longer Term Non-Specialist Community Rehabilitation Team (Q.5.4)

Comment: Half of all sites use non-specialist teams to provide on-going rehabilitation for their stroke patients. The longer term needs of stroke patients are often complex and become more difficult as time progresses, requiring considerable expertise to overcome. There is a strong argument for such treatment to be provided by therapists who do not also have to understand the best treatment techniques for a whole variety of other conditions as well. Again these team frequently have unacceptably long waiting lists.

Non - specialist community rehabilitation team (Q5.4, 5.4a)	National (190 sites)	Your site
Access to non-specialist community rehabilitation team for longer-term management	49% (94)	
If yes, percentage of catchment area with access	Median 100% IQR: 100-100% 72/94 with 100%	

Of the 94 sites with a non-specialist community rehabilitation team, 44 sites also have access to a specialist team. 50 sites use a non-specialist team exclusively.

Professional group included in team (Q5.4b)	Team (94 sites)		Current approximate waiting time*				
			< 48 h	49h – 7 days	8 – 14 days	> 14 days	Your site access
Clinical Psychologist	9%	(8)	0	3	0	5	
Dietitian	36%	(34)	1	19	9	5	
Occupational therapist	99%	(93)	23	33	16	21	
Physiotherapist	100%	(94)	23	38	14	19	
Social worker	59%	(55)	12	23	6	14	
Specialist doctor	18%	(17)	6	7	1	3	
Specialist nurse	53%	(50)	23	18	4	5	
Speech & Language therapist	64%	(60)	4	23	15	18	
Generic therapy worker	86%	(81)	23	32	12	14	
Family / Carer support worker	35%	(33)	8	17	4	4	
Four or more specialties including OT, PT, SLT on the team %YES	61%	(57)					

*Answers here were for the PCT/borough that sites received most patients from

	National (94 sites)	Your site
Number of stroke patients who received treatment from the team at home in the last week *(Q5.4c)	Median: 2, IQR: 0-12 TOTAL: 763	
Delays in discharging patients for longer term community management because of delays in therapy assessments/ social work/ home adaptations. (Q5.4d)	66% (62/94)	

* Each patient can only be counted once no matter how many times they were visited

3.9 TIA/Neurovascular clinic (Q6.1-6.4)

National Clinical Guidelines: All patients whose acute symptoms remit within 24 hours (ie TIA) should be seen by a specialist physician (eg in a specialist neurovascular clinic or an acute stroke unit) within the time determined by their clinical features.

Comment: TIA management is another area of care that has seen a dramatic improvement in service provision over recent years. Only a few years ago neurovascular clinics were unusual with waiting times often running into weeks or months. Now, 99% of sites (100% of trusts) provide neurovascular clinics and the median number of clinics per month is 20 with the interquartile range being from 20-28. The median waiting time for a clinic is 2 days. There are now very few areas of the country where a high risk TIA patient would need to wait more than a week and over half of high-risk inpatients (37% of high risk outpatients) could be seen the same day seven days a week.

Neurovascular service	National (190 sites)		Your site
Neurovascular Clinic (Q6.1) %YES	99%	(188)	
If No (2 sites) , who provides this for your patients (Q6.1a)			
• Another site within our trust		(2/2)	
• Another trust		(0/2)	

The denominator for the remainder of this section is 190. This comprises 188 sites with an onsite TIA clinic and 2 sites with access to a TIA clinic within their trust.

Neurovascular service		National (190 sites)	Your site
Number of clinics within 4 week period (Q6.1b)	Median (IQR), Total % more than 4 clinics	20 (20-28), 4418 95% (180/190)	
Number of new patients seen in past 4 weeks (Q6.1c)	Median (IQR)	46 (26-65)	
Current average waiting time in days for an appointment for clinic (Q6.1d)	Median (IQR) % more than 7 days	2 (1-3) days 6% (11/190)	

Usual waiting time for carotid imaging (Q6.2):	**HIGH**-risk TIA patients ($ABCD^2$ score of 4 or more)			**LOW**-risk TIA patients ($ABCD^2$ score of less than 4)		
	National (190 sites)		Your site	National (190 sites)		Your site
The same day (7 days a week)	36%	(69)		14%	(26)	
The same day (5 days a week)	48%	(91)		35%	(67)	
The next day	7%	(13)		4%	(7)	
The next weekday	7%	(14)		4%	(8)	
Within a week	2%	(3)		36%	(68)	
Longer than a week	0%	(0)		7%	(14)	

Timescale to see, investigate and initiate treatment for all TIA inpatients (Q6.3, 6.4):	**High**-risk patients (ABCD^2 score of 4 or more)		**Low**-risk patients (ABCD^2 score of less than 4)	
	National (190 sites)	**Your site**	National (190 sites)	**Your site**
Service provided for **INPATIENTS**	84% (160/190)		45% (86/190)	
If YES as an **Inpatient**				
The same day (7 days a week)	53% (85)		31% (27)	
The same day (5 days a week)	31% (49)		31% (27)	
The next day	6% (10)		8% (7)	
The next weekday	9% (15)		14% (12)	
Within a week	1% (1)		14% (12)	
Within a month	0% (0)		1% (1)	
Longer than a month	0% (0)		0% (0)	
Service provided for **OUTPATIENTS**	95% (181/190)		99% (189/190)	
IF YES as an **Outpatient**				
The same day (7 days a week)	37% (67)		6% (12)	
The same day (5 days a week)	33% (59)		17% (33)	
The next day	10% (18)		3% (5)	
The next weekday	15% (28)		7% (13)	
Within a week	2% (4)		59% (112)	
Within a month	3% (5)		7% (14)	
Longer than a month	0% (0)		0% (0)	

63% of sites can see, investigate and treat their high risk TIA patients (inpatients or outpatients) on same or next day (7 days a week).

95% of sites can see, investigate and treat their low risk TIA patients (inpatients or outpatients) within a week.

3.10 Future plans for the service (Q10.1-10.5)

Summary of responses

1. *33 sites (17%) are planning changes to their thrombolysis services, with 2 sites offering thrombolysis for the first time and 20 planning to increase the hours for which it is available. 9 sites will be providing thrombolysis for another site.*
2. *55 sites (29%) will be changing bed provision over the next 12 months with 32 sites increasing their provision and 23 planning a decrease.*
3. *53 sites are planning to start offering a stroke specialist early supported discharge team with 1 also having access to a non specialist team.*
4. *13 sites are planning to start offering a stroke specialist community rehabilitation team with 5 having access to a non-specialist team as well.*
5. *62 sites planning to increase the number of neurovascular clinics held each month with 1 starting a clinic for the first time.*

Future Plans – thrombolysis (Q10.1)	National (190 sites)		Your site
Will there be any changes in service with regard to thrombolysis in the next 12 months?	17%	(33)	
We will be offering thrombolysis for the first time	6%	(2/33)	
We will be increasing the hours in which we offer thrombolysis	61%	(20/33)	
We will be decreasing the hours in which we offer thrombolysis	3%	(1/33)	
We will still offer thrombolysis and another site will be providing thrombolysis for us in the hours we do not offer it	3%	(1/33)	
We will provide thrombolysis for another site.	27%	(9/33)	
We will no longer provide thrombolysis but (an)other site(s) will provide it for our patients	6%	(2/33)	
We will no longer provide thrombolysis	0%	(0/33)	

Future Plans – bed provision (Q10.2)	National (190 sites)		Your site
Changes to bed provision on the stroke unit(s) in the next 12 months	29%	(55)	
The number of will increase	58%	(32/55)	
The number of will decrease	42%	(23/55)	

Future Plans – Early Supported Discharge (Q10.3)	National (190 sites)		Your site
Changes in access to ESD teams in the next 12 months	28%	(53)	
We will have access to a stroke/neurology specific ESD team	100%	(53/53)	
We will no longer have access to a stroke/neurology specific ESD team	0%	(0/53)	
We will have access to a non-specialised ESD team	2%	(1/53)	
We will no longer have access to a non-specialised ESD team	0%	(0/53)	

Future Plans – Community Rehabilitation Team (10.4)	National (190 sites)		Your site
Will there be any changes in access to community rehabilitation teams for longer term management in the next 12 months?	9%	(17)	
We will have access to a stroke/neurology specific community rehabilitation team	76%	(13/17)	
We will no longer have access to a stroke/neurology specific community rehabilitation team	0%	(0/17)	
We will have access to a non-specialised community rehabilitation team	29%	(5/17)	
We will no longer have access to a non-specialised community rehabilitation team	0%	(0/17)	

Future Plans – Neurovascular / TIA service (10.5)	National (190 sites)		Your site
Will there be any changes in provision of neurovascular/TIA services in the next 12 months?	34%	(64)	
We will no longer have a neurovascular clinic	0%	(0/64)	
We will have a neurovascular clinic	2%	(1/64)	
We will increase the numbers of clinics we have in a 4 week period	97%	(62/64)	
We will decrease the numbers of clinics we have in a 4 week period	2%	(1/64)	

3.11 Community hospitals

Comment: The use of community hospitals is widespread with 250 other locations identified as being used by stroke patients and so far has been largely provided without much external scrutiny. The new stroke audit, SSNAP, will monitor the standards of care as patients move through the entire pathway and we hope that all of these units will find it helpful to include their patients in the audit.

Number of other locations*, providing bed-based rehabilitation, which take at least 10 patients per year with primary diagnosis of stroke (from your hospital(s))(Q11A)?	National (190 sites)		Presence of stroke units in other locations	**Your site**
• None	35%	(67)	NA	
• One	27%	(52)	62% (32/52)	
• Two	19%	(36)	72% (26/36)	
• Three	12%	(23)	57% (13/23)	
• Four	3%	(5)	60% (3/5)	
• Five or more	4%	(7)	43% (3/7)	

*i.e. community hospital beds, intermediate care beds, rehab stroke unit beds, generic rehab beds

In total there were 250 'other' locations identified by 123 sites and 46% (116/250) were stroke units. The median (IQR) number of stroke unit beds in these 116 stroke units was 12 (8-19) beds, with a total of 1606 beds. The median (IQR) number of stroke inpatients in these 116 stroke units was 10 (6-16), with a total of 1279 stroke inpatients. The median (IQR) ratio of stroke inpatients to beds in these 116 units was 0.98 (0.67-1.00).

The median (IQR) number of stroke inpatients in these 250 other locations was 4 (1-10), with a total of 1643 stroke inpatients. The median (IQR) number of stroke inpatients in the 134 non-stroke unit other locations was 2 (0-4), total 364.

At the site level, summing over however many other locations the site had identified	National (123 sites with other locations) Median (IQR), Total	**Your site**
Stroke unit (SU) beds:	10 (0-20), 1606	
• For those 77 sites with other locations that included an SU	16 (11-26), 1606	
Stroke patients :	10 (4-19),1643	
• For those 77 sites with other locations that included an SU	15 (10-27), 1382	
Ratio of stroke inpatients to stroke unit beds :		
• For those 77 sites with other locations that included an SU median (IQR)	1.00 (0.78-1.00)	

Community hospitals	National (250 hospitals identified by 123 sites)	
Medical cover provided by:		
Stroke specialist doctor	48%	(120/250)
Patient's own GP	12%	(30/250)
Any GP	26%	(65/250)
Other**	41%	(103/250)
5 days a week access to:		
Occupational Therapy	95%	(237/250)
Physiotherapy	97%	(242/250)
Speech and Language Therapy	72%	(181/250)

**others comprised: 29 sites with care of the elderly / geriatrician, 28 sites with other types of consultant,1 21 sites with GPs of varying description, and 25 sites with other medical staff of varying sorts.

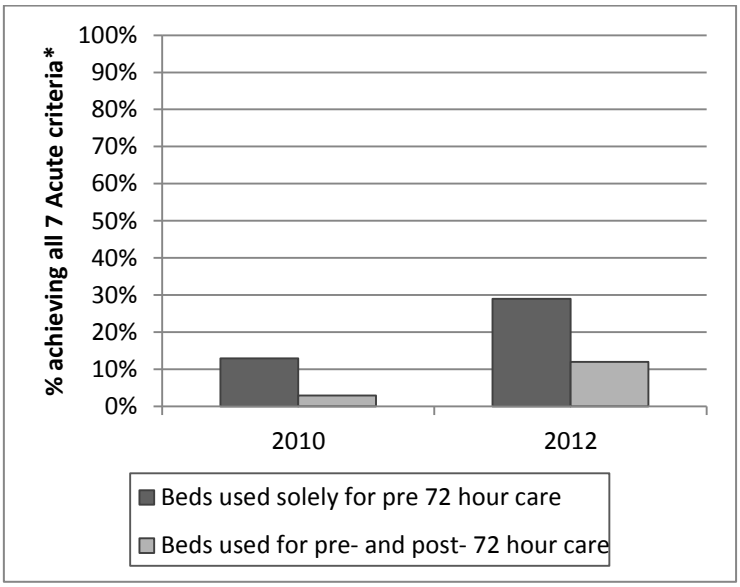
Section 4: Audit Results over Time - Change between 2006, 2008, 2009, 2010 and 2012

This section shows changes over time since 2006. Results for 2006 to 2010 relate to data collected for the National Sentinel Stroke Audit (NSSA); 2012 data is from the SSNAP acute organisational audit. The section broadly follows the 8 domains of stroke care; however not all elements of each domain are included due to incomparability between rounds.

4.1 Acute stroke care organisation (Domain 1)

Comment: There has been a big growth in the percentage of sites with beds used solely for patients in the first 72 hours achieving all 7 acute criteria since from 13% in 2010 to 29% in 2012.

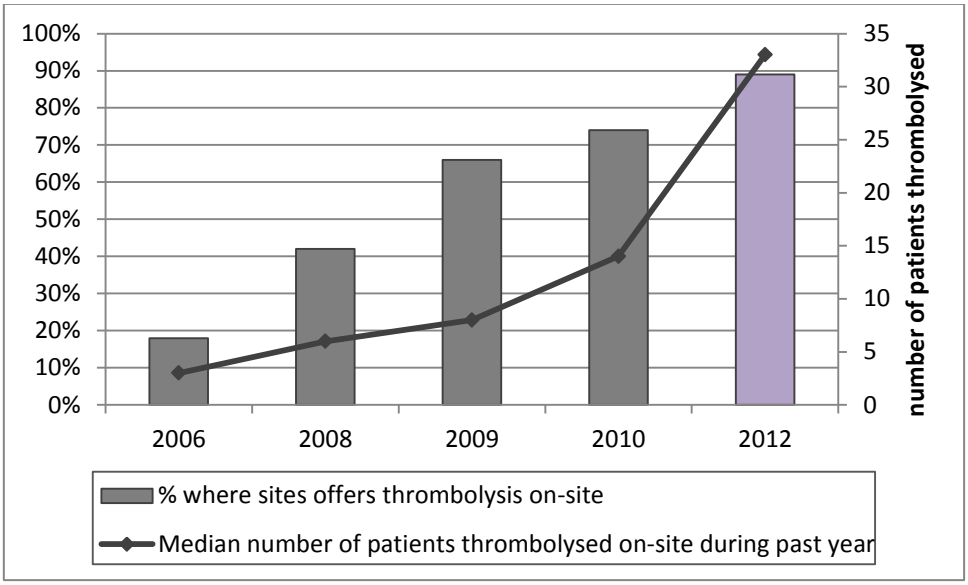
	NSSA				SSNAP
	2006	2008	2009	2010	2012
% of sites with Type 1 beds achieving all 7 acute criteria*	NA	NA	NA	13%	29%
% of sites with Type 3 beds achieving all 7 acute criteria*	NA	NA	NA	3%	12%



** The 7 acute criteria are continuous physiological monitoring (ECG, oximetry, blood pressure), immediate access to scanning for urgent stroke patients, direct admission from A&E/front door, specialist ward rounds on 7 days a week, acute stroke protocols/guidelines, nurses trained in swallow screening, nurses trained in stroke assessment and management*

Comment: There has been huge growth in both the number of sites undertaking thrombolysis and the median number of patients treated per year has increased from 14 to 33.

(Q1.5, 1.6)	NSSA				SSNAP
	2006	2008	2009	2010	2012
% where sites offers thrombolysis onsite	18%	42%	66%	74%	89%
Median number of patients thrombolysed onsite during past year	3	6	8	14	33



4.2 Organisation of care (Domain 2)

Comment: There has been a small increase in the ratio of stroke unit beds to patients in hospital with stroke over successive years with it reaching 1.15 this year. Access to early supported discharge has risen sharply from 44% of sites to 66% this year; however there has been no similar improvement in access to specialist community rehabilitation from 55% to 57%.

(QA2, B1)	NSSA				SSNAP
	2006	2008	2009	2010	2012
Ratio of SU beds to the number of people with stroke on the day	0.89	1.00	1.04	1.07	1.15
Median (IQR) number of stroke beds	24 (16-30)	25 (20-34)	26 (20-36)	26 (20-34)	25 (20-34)

(Q5.1, 5.3)	NSSA				SSNAP
	2006	2008	2009	2010	2012
Access to a stroke specific ESD team	NA	NA	NA	44%	66%
Access to specialist community rehab	NA	NA	NA	55%	57%

4.3 Specialist roles (Domain 3)

Comment: Over half of units set up to specifically care for patients in the first 72 hours after stroke have consultant ward rounds at least seven days a week. Only 30% of units with mixed hyperacute and acute patients offer this service. There is no logic detectable in this disparity but does perhaps argue for focussing hyperacute stroke care in specialist units. In terms of access to other specialist services there have been small shifts in the right direction particularly for access to vocational rehabilitation.

	NSSA				SSNAP
	2006	2008	2009	2010	2012
Consultant ward rounds 7 days per week					
• Type 1* beds (Q3.5)	NA	NA	NA	29%	53%
• Type 3** beds (Q3.17)	NA	NA	NA	11%	30%
Band 7 Nurse on stroke unit (Q7.4)	NA	NA	NA	84%	92%
Palliative care patients treated on stroke unit (Q4.7)	NA	NA	NA	99%	99%
Access within 5 days to social work (Q4.1a)	NA	NA	NA	95%	97%
Access to psychologists (Q4.2)	NA	NA	NA	49%	52%
Vocational training (Q7.5b)	NA	NA	NA	45%	50%
Stay in bed until assessed by physiotherapist (Q4.4)	NA	NA	NA	17%	12%

*Type 1: Beds solely for first 72 hours of care
**Type 3: Beds for both first 72 hours of care and post 72 hour care

4.4 Inter disciplinary services (for sites with a stroke unit) (Domain 4)

Comment: There has been a welcome improvement in access to psychology services on the stroke unit from 31% in 2006 to 46% now. But still over half of units have no access at all. At this rate of change it will not be until 2034 until we achieve 100%! There has however been a step change in the provision of 7 day therapy working, particularly for physiotherapy and to a lesser extent occupational therapy with a quarter of units having physiotherapy every day of the week.

Qualified nurse/care assistants at 10am on normal weekdays (Q3.8, 3.12, 3.20)	NSSA				SSNAP
	2006	2008	2009	2010	2012
Median (IQR)	7 (6-11)	8 (6-12)	8 (6-12)	8 (7-12)	8 (7-11)
Staff establishment: % YES (Q4.3)					
Clinical Psychology	31%	36%	35%	39%	46%
Dietetics	85%	96%	95%	96%	99%
Occupational Therapy	99.5%	100%	99%	99%	100%
Physiotherapy	99.5%	100%	99%	99%	100%
Speech and Language Therapy	94%	99%	98%	98%	99%
Pharmacy	75%	86%	89%	88%	93%
Orthotics*	7%	19%	16%	NA	NA
Foot health*	11%	19%	15%	NA	NA

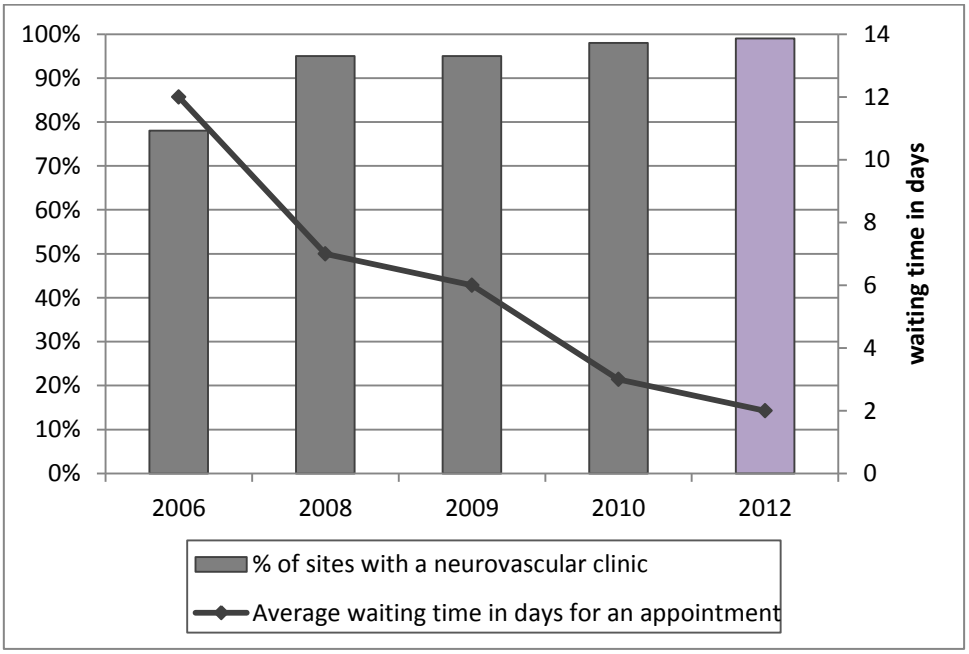
* In 2010 and 2012 we asked for access to these professions within 5 days.

% of qualified 7 day therapy working (Q4.3)	NSSA				SSNAP
	2006	2008	2009	2010	2012
Occupational Therapy	NA	4	4	4	16
Physiotherapy	NA	4	7	12	25
Speech and Language Therapy	NA	1	0	0.5	3

4.5 TIA/neurovascular service (Domain 5)

Comment: In 2006 almost a quarter of all hospitals had no neurovascular clinic and the average waiting time for those clinics that were available was 12 days. We have now achieved clinics in 99% of sites (100% of trusts) with an average waiting time of two days. Perhaps this is one of the most important achievements thus far of the National Stroke Strategy. Perhaps surprisingly there has been an increase from 33% to 53% of sites that admit at least some of their high risk patients for investigation and management the same day 7 days a week since 2010.

	NSSA				SSNAP
	2006	2008	2009	2010	2012
Neurovascular clinic onsite (Q6.1)	78%	95%	95%	98%	99%
Clinics within a 4 week period (Q6.1b)	5 (4-8)	8 (4-12)	12 (6-20)	20 (9-20)	20 (20-28)
Average waiting time in days (Q6.1d)	12 (7-17)	7 (5-12)	6 (3-10)	3 (2-7)	2 (1-3)



	NSSA				SSNAP
	2006	2008	2009	2010	2012
See investigate & initiate treatment HIGH risk patients same day 7 days a week (Q6.3)					
• Inpatients	NA	NA	NA	33%	53%
• Outpatients				10%	37%
LOW risk patients same day 7 days a week (Q6.4)					
• Inpatients	NA	NA	NA	17%	31%
• Outpatients				2%	6%
Carotid Imaging same day 7 days a week (Q6.2)					
• HIGH risk	NA	NA	NA	10%	36%
• Low risk				2%	14%

4.6 Quality improvement and research (Domain 6)

Comment: The number of sites producing reports on stroke for the trust board has increased from 88% in 2010 to 93% this year but slightly concerning is the fall from 98% to 93% in the number of sites with a strategic group responsible for stroke. We hope that this is not the beginning of a decline in the importance attached to stroke within health services. It is clear from this report that the job of transforming stroke care has started but is nowhere near completion.

	NSSA				SSNAP
	2006	2008	2009	2010	2012
Stroke service report produced for trust board (Q8.1)	NA	NA	NA	88%	93%
Strategic group responsible for stroke (Q8.3)	NA	NA	NA	98%	93%
Funding for external courses available for nurses and therapists (Q8.4)	NA	NA	NA	90%	88%
1 or more research studies (Q8.10)	56%	68%	72%	81%	92%

4.7 Team working (Domain 7)

Comment: It is encouraging that over time the frequency of multidisciplinary meetings has increased with all sites now having at least one such meeting a week. The composition of the teams has become stronger in the areas of clinical psychology and speech and language therapy. However, social work remains a major concern. Only 66% of teams now have regular social worker attendance, down from a high of 82% in 2009. At a time of huge complex changes in health and social care and with increasing financial problems for disabled people it is incomprehensible why such an important member of the multidisciplinary team should be seen as dispensable.

	NSSA				SSNAP
	2006	2008	2009	2010	2012
Team meetings (at least) once weekly % (Q4.6)	100	100	100	99.5	100
Team meetings (at least) twice weekly %	NA	NA	NA	51	76
Disciplines who regularly attend team meetings: (Q4.6a)					
Clinical Psychology	18	19	18	22	26
Dietetics	61	59	64	65	60
Medicine (Senior Doctor)	98	98	99	96	98
Nursing	100	99.5	100	99	99
Occupational Therapy	99	100	99.5	100	99
Physiotherapy	100	100	100	100	99
Social Work	77	79	82	78	66
Speech & Language Therapy	82	86	82	84	89

4.8 Communication with patients and carers (Domain 8)

Comment: The picture painted by this audit of patient and carer communication and involvement with service organisation and delivery is mixed with little change in some areas but larger improvements in others, such as between 2010 and 2012 the provision of personalised discharge plans increased from 60% to 86%, provision of a named contact on discharge from 71% to 76% and patient views having been sought from 88% to 92%.

	NSSA				SSNAP
	2006	2008	2009	2010	2012
Formal links with patients and carers organisations for communication on service provision, audit or future plans (Q9.4)*	74	81	86	90	88
Community user group for stroke (Q9.5)	68	75	81	92**	89**

*In 2010, 43% of sites had formal links on all of the three topics. In 2012, this figure is 53%.
** In 2010 and 2012 we asked for formal links with community user groups for stroke.

	NSSA				SSNAP
	2006	2008	2009	2010	2012
Patient access to management plan % (Q9.1)	73	80	79	79	82
Patient information literature displayed in unit/ward on: (Q9.2)					
• Patient versions of national or local guidelines/standards	59	77	84	81	82
• Social Services local Community Care arrangements	82	81	92	86	88
• The Benefits Agency	76	80	88	84	86
• Secondary prevention advice			99	98	98
Patients given a personalised discharge plan (Q9.3)	NA	NA	NA	60	86
Policy to give patients a named contact on transfer from hospital to community (Q9.6)	61	58	66	71	76
Patients views sought on stroke services (Q8.6)	86	88	89	88	92
Report produced in past 12 months which analysed patient views (Q8.7)	42	44	51	54	68

Section 5: Audit Results by Country

This section gives national figures for the organisation of stroke care in England, Wales and Northern Ireland at 2 July 2012.

Denominators vary within tables because of differing site characteristics. 190 is the total number of sites that participated in the audit in England, Wales, Northern Ireland and the Islands. There are 14 sites in England which do not provide care to patients in the first 72 hours. These sites are excluded from the analysis of measures relating to this phase of acute care. Please refer to page 21 for more details on denominators.

The 'All sites' column reflects the national figures including the results from two participating Islands. However, the regional breakdowns relate to results from England, Wales and Northern Ireland only.

5.0 Type of service overall

Care in the first 72 hours after stroke	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
Care provided for ALL patients in the first 72 hours after stroke	84% (159)	82% (134)	100% (14)	82% (9)
Care provided for SOME patients in first 72 hours after stroke	9% (17)	9% (15)	0% (0)	18% (2)
Care is NOT provided for patients within first 72 hours of stroke	7% (14)	9% (14)	0% (0)	0% (0)

5.1 Presentation and initial assessment

	All sites (176)	England (149)	Wales (14)	N. Ireland (11)
There are NO arrangements in place with local ambulance services to FAST- Track (rapid blue light transfer to hospital) patients presenting with acute stroke who may be appropriate for thrombolysis (Q1.2)	2% (4/176)	3% (4/149)	0% (0/14)	0% (0/11)

5.2 Thrombolysis provision and patients thrombolysed

Comment: Good progress has been made in all three countries in developing thrombolysis services, particularly in Wales which had minimal provision 2 years ago and now offers round the clock thrombolysis provision in 100% of its hospitals either onsite or in collaboration with a neighbouring hospital. In England and Northern Ireland these figures are 90% and 100% respectively. However a large proportion of hospitals in all three countries still only treat a small percentage of their stroke admissions. All hospitals should be able to treat at least 10% of unselected admissions and only about a quarter of sites in England and Wales achieve this and none in Northern Ireland.

(Section 1 – Thrombolysis in your hospital(s))	All sites (176)	England (149)	Wales (14)	N. Ireland (11)
% of sites currently providing an on-site 24/7 thrombolysis service	74% (131)	73% (109)	93% (13)	82% (9)
% of sites currently providing a 24/7 thrombolysis service, on-site only or in collaboration with neighbouring sites.	90% (159)	90% (134)	100% (14)	100% (11)

Sites currently providing thrombolysis	All sites (156)	England (132)	Wales (14)	N. Ireland (9)
Number of patients thrombolysed across site 1 April 2011 – 31 March 2012 (Q1.6)				
• <3%	14% (22)	13% (17)	21% (3)	22% (2)
• 3% to <6%	28% (43)	27% (35)	43% (6)	11% (1)
• 6% to <10%	33% (51)	33% (43)	14% (2)	67% (6)
• 10% or more	26% (40)	28% (37)	21% (3)	0% (0)

5.3 Stroke unit provision

100% of sites in England, Wales and Northern Ireland have designated stroke unit beds.

Comment: Finally all sites in all three countries have designated stroke units. This major achievement should be celebrated although it has taken nearly 20 years since the evidence was published that they save lives and reduce disability. All of the three countries appear to have sufficient stroke beds for the number of stroke patients in hospital on the day of the audit, particularly Northern Ireland which had a ratio of 1.63 beds per patient.

	All sites (189)	England (163)	Wales (14)	N. Ireland (11)
Median (IQR) number of stroke beds in stroke units per site 2012	25 (20-34)	27 (20-35)	19 (12-23)	14 (11-19)
Ratio: Median (IQR) number of stroke unit beds per stroke inpatient (on site on the day the audit form was completed)	1.15 (1.00-1.44)	1.15 (1.00-1.39)	1.09 (1.00-1.60)	1.63 (1.10-1.88)

5.3.1 Stroke care in the first 72 hours

This section includes:

- Sites with beds used solely for the first 72 hours after stroke (Type 1 beds)
- Sites with beds used for both pre and post 72 hour stroke care (Type 2 beds)

The 7 acute criteria for stroke units with type 1 and type 3 beds are:

- Continuous physiological monitoring (ECG, oximetry, blood pressure)
- Immediate access to scanning for urgent stroke patients
- Direct admission from A&E/front door
- Specialist ward rounds on 7 days a week
- Acute stroke protocols/guidelines
- Nurses trained in swallow screening
- Nurses trained in stroke assessment and management

Comment: Provision of appropriate care in the first 72 hours requires a high level of resource; such patients should be receiving the equivalent of High Dependency Unit support, both in terms of equipment, staffing levels and expertise. It is not enough simply to designate an area in a hospital as a hyperacute stroke unit and then assume that the patients will therefore receive hyperacute care. It is of serious concern that so many such units (both those with a separate hyperacute unit and those where the hyperacute beds are combined with the post 72 hour beds) fail to meet the basic standards defined in the audit. Less than a third of English units with designated pre-72 hour beds achieve all 7 quality criteria and none of the units in Wales or Northern Ireland. There are still clearly many hospitals that need to look at the services they are providing and urgently rectify their failings. There also appears to be an excessive use of medical assessment beds for stroke patients, rather than admitting patients directly to the stroke unit. These beds demonstrably do not offer the same level of care that stroke units are able to offer and should rarely if ever be used. There is a particular penchant for the use of medical assessment beds in Wales and Northern Ireland that needs to be rectified.

Stroke units with Type 1 beds	All sites (n=83) (47% of 175)	England (n=77) (52% of 149)	Wales (n=5) (36% of 14)	N. Ireland (n=1) (9% of 11)
Median (IQR) number of type 1 stroke unit beds (Q3.1c)	6 (4-11)	6 (4-12)	5 (4-5)	4 (4-4)
% stroke units beds with all 7 criteria	29% (24/83)	31% (24/77)	0% (0/5)	0% (0/1)
% stroke units beds with 6 or more criteria	66% (55/83)	69% (53/77)	20% (1/5)	100% (1/1)

Stroke units with Type 3 beds	All sites (n=122) (70% of 175)	England (n=100) (67% of 149)	Wales (n=10) (71% of 14)	N. Ireland (n=11) (100% of 11)
Median (IQR) number of Type 3 stroke unit beds (Q3.1e)	20 (15-27)	22 (17-28)	19 (12-23)	14 (11-19)
% stroke units beds with all 7 criteria	12% (15/122)	14% (14/100)	0% (0/10)	9% (1/11)
% stroke units beds with 6 or more criteria	50% (61/122)	57% (57/100)	0% (0/10)	27% (3/11)

Are there ever stroke patients in general assessment / decision beds e.g. MAU**	All sites (n=129) (68% of 190)	England (n=105) (64% of 163)	Wales (n=14) (100% of 14)	N. Ireland (n=10) (91% of 11)
Median (IQR) number of beds in assessment units per site (QB3)	32 (24-48)	34 (26-49)	23 (17-27)	29 (16-53)
% assessment unit beds with all 6* criteria	2% (3/129)	3% (3/105)	0% (0/14)	0% (0/10)
% assessment unit beds with 4-5 criteria	29% (38/129)	33% (35/105)	14% (2/14)	10% (1/10)

* MAUs were not asked about having acute stroke guidelines for their beds so they are scored out of 6 rather than 7 criteria.

5.3.2 Stroke care across all 'types' of stroke unit

This section includes all 189 sites which have a stroke unit. It is not broken down into different 'types' of stroke unit bed.

The 5 SUTC characteristics for all stroke units (type 1, type 2 and type 3 beds) are:

- Consultant physician with responsibility for stroke
- Formal links with patient and carer organisations
- Multidisciplinary meetings at least weekly to plan patient care
- Provision of information to patients about stroke
- Funding for training (study leave and days taken)*

  * The SUTC characteristic is defined as 'a programme for continuing education of staff'.

	All sites (189)	England (163)	Wales (14)	N. Ireland (11)
% of sites with stroke units who have all 5 SUTC Key Characteristics	43% (82/189)	40% (66/163)	64% (9/14)	64% (7/11)

5.3.3 Whole Time Equivalents (WTE) of staff across all stroke units

These data are presented as ratios of staff per 10 stroke unit beds.

Comment: Junior medical staffing levels on stroke units in Wales and Northern Ireland are considerably lower than in England at a level that raises concerns at their ability to provide the level of cover that is needed for a safe service. Nursing and therapy levels are marginally lower in Wales than elsewhere, particularly for occupational therapy. Seven day working is growing fast in England but is yet to get a foothold in Wales or Northern Ireland.

	All sites (189)	England (163)	Wales (14)	N. Ireland (11)
Median (IQR) number of qualified nurses/assistants usually on duty at 10am weekdays per 10 beds	3.42 (3.00-4.00)	3.42 (3.00-4.00)	3.33 (2.73-4.38)	3.50 (3.16-4.29)
Median (IQR) number of junior doctor sessions (Q4.5)	26 (14-40)	30 (16-44)	10 (10-30)	13 (10-20)
Median (IQR) WTE per 10 stroke unit beds for qualified staff: (Q4.3)				
Clinical Psychology	0.00 (0.00-0.11)	0.0 (0.00-0.14)	0.00 (0.00-0.09)	0.00 (0.00-0.20)
Dietetics	0.17 (0.11-0.28)	0.18 (0.12-0.29)	0.14 (0.10-0.29)	0.15 (0.06-0.25)
Occupational Therapy	1.09 (0.82-1.36)	1.11 (0.87-1.41)	0.73 (0.52-0.83)	1.00 (0.91-1.33)
Physiotherapy	1.31 (1.04-1.61)	1.32 (1.05-1.61)	1.23 (0.92-1.38)	1.11 (0.58-1.64)
Speech & Language Therapy	0.47 (0.32-0.70)	0.48 (0.33-0.73)	0.46 (0.29-0.50)	0.36 (0.33-0.67)
Pharmacists	0.15 (0.08-0.25)	0.15 (0.08-0.26)	0.15 (0.10-0.20)	0.11 (0.00-0.33)
Nurses	8.00 (6.76-9.55)	8.03 (6.84-9.55)	7.07 (5.17-7.95)	8.89 (8.00-11.02)
% with 6 or 7 day working for therapists (Q4.3)				
Occupational Therapy	24% (46/189)	28% (46/163)	0% (0/14)	0% (0/11)
Physiotherapy	35% (69/189)	42% (68/163)	7% (1/14)	0% (0/11)
Speech & Language Therapy	5% (10/187)*	6% (10/161)*	0% (0/14)	0% (0/11)
*2 sites in England do not have any speech and language therapists				
% with 5 day access on stroke unit to: (Q4.1)				
Social work expertise	97% (183)	96% (157)	100% (14)	100% (11)
Orthotics	83% (157)	85% (139)	100% (14)	27% (3)
Orthoptics	87% (165)	89% (145)	100% (14)	45% (5)
Podiatry / Foot health	57% (107)	52% (85)	93% (13)	73% (8)
Clinical Psychologists	39% (74)	43% (70)	29% (4)	0% (0)
Mulitidisciplinary team meetings (Q4.6) Take place more than twice a week	61% (115)	63% (103)	64% (9)	27% (3)

5.4. Management of stroke services

Comment: The lack of junior medical staff in Wales and Northern Ireland compared to England is further compounded by less consultant time with both having only half the number of programmed activities. It is also disappointing that there is only one stroke specialist registrar in Wales and Northern Ireland. Either doctors in Wales and Northern Ireland are working extraordinarily hard, which may well be the case or else the patients are not getting sufficient attention; either way the situation is unsustainable.

5.4.1 Investment in staff

WTE of Band 7 or above stroke specialist staff	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
Clinical Psychologists	0.0 (0.0-1.0)	0.0 (0.0-1.0)	0.0 (0.0-1.0)	0.0 (0.0-0.0)
Dietitian	0.0 (0.0-0.5)	0.0 (0.0-0.5)	0.0 (0.0-0.3)	0.0 (0.0-0.0)
Nurses	2.0 (1.0-2.5)	2.0 (1.0-2.8)	1.0 (0.5-1.0)	1.0 (1.0-2.0)
Occupational Therapists	1.0 (0.8-1.0)	1.0 (1.0-1.3)	1.0 (0.3-1.0)	0.0 (0.0-1.0)
Physiotherapists	1.0 (1.0-2.0)	1.0 (1.0-2.0)	1.3 (1.0-2.0)	1.0 (0.0-1.0)
Speech and Language Therapists	1.0 (0.3-1.0)	1.0 (0.5-1.0)	1.0 (0.0-1.0)	0.3 (0.0-1.0)

	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
Accredited specialist registrar in post registered for stroke specialist training (Q7.2)	26% (49)	29% (47)	7% (1)	9% (1)
Number of PAs for stroke consultant physicians: Median (IQR) (Q7.3)	20 (11-27)	20 (12-30)	10 (4-17)	10 (4-22)
Number of PAs for direct clinical care for stroke: Median (IQR) (Q7.3a)	14 (8-20)	15 (10-21)	7 (4-10)	6 (3-10)

	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
Funding for external courses available for nurses and therapists (Q8.4)	88% (168)	87% (142)	93% (13)	100% (11)
Number of staff days paid for between 1 April 2011 and 31 March 2012: Median (IQR) (Q8.4a)	21 (9-42)	23 (10-57)	24 (7-35)	12 (1-24)

5.4.2 Quality improvement

Comment: Wales are doing well in terms of ensuring that management and clinicians are working together overseeing and running stroke services and also in reviewing patient experience. Almost a third of English hospitals have not produced a report on patient views in the last year and only two of 11 sites have done so in Northern Ireland.

	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
% of sites with a strategic group responsible for stroke (Q8.3)	93% (176)	92% (150)	100% (14)	100% (11)
Stroke service report prepared for trust board between 1 April 2011 – 31 March 2012 (Q8.1)	93% (177)	94% (154)	100% (14)	73% (8)
Report produced between 1 April 2011 – 31 March 2012 which analysed the views of patients (Q8.7)	68% (129)	69% (113)	100% (14)	18% (2)

5.4.3 Leadership of stroke services

	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
% of sites with clinicians with specialist knowledge of stroke formally recognised as having principal responsibility for stroke services (Q7.1)	100% (190)	100% (163)	100% (14)	100% (11)
Clinical leader meets with senior management (director level) within the trust at least quarterly (Q8,12)	85% (162)	85% (138)	100% (14)	82% (9)
Forum for staff to communicate with leader (Q8.15)	94% (178)	96% (156)	86% (12)	82% (9)

5.4.4 Research studies

Comment: Participation in stroke research has grown enormously in recent years particularly in England thanks to the stroke research network; there has also been an increase in the other two countries but at a slower rate.

Stroke studies registered with your Research & Development department (Q8.10)	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
% of sites with ONE or more research studies	92% (174)	95% (155)	79% (11)	73% (8)
% of sites with THREE or more research studies	74% (141)	80% (131)	21% (3)	64% (7)

5.5 Patient support and communication

Comment: Wales and Northern Ireland are performing better than England at the provision of patient focussed information and support, particularly in terms of linking with patient and carer organisations. None of the countries can be proud of the services that are provided for patients requiring vocational rehabilitation, although in all there has been improvement since the last audit.

Discharge planning (Q9.3 – 9.6)	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
Patients given a personalised rehabilitation discharge plan	86% (163)	86% (140)	93% (13)	82% (9)
Stroke service has formal links with patients and carers organisations for communication on ALL of the following: service provision, audit , and service reviews and future plans	53% (100)	48% (79)	86% (12)	82% (9)
Stroke service has formal links with community user groups for stroke	89% (169)	88% (143)	100% (14)	100% (11)

Support for working age patients (Q7.5)	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
Provision of a service which actively supports stroke patients to remain in, return to or withdraw (if appropriate) from work? Q7.5a	68% (130)	72% (116)	57% (8)	45% (5)
Provision of a service which actively provides educational or vocational training? (Q7.5b)	50% (95)	50% (82)	57% (8)	36% (4)

5.6 Pathway at discharge

Early supported discharge team refers to a multidisciplinary team which provides rehabilitation and support in a community setting with the aim of reducing the duration of hospital care for stroke patients.

Early Supported Discharge Teams and Community Rehabilitation Teams

Comment: Early supported discharge should be a fundamental component of every stroke service and in two thirds of sites in England and a 100% of Northern Irish areas it does now have a place. There is only one stroke/neurology specific team in the whole of Wales where it appears that they have opted to invest in non-specialist teams which have not been shown to be an effective model. It may be that demographic and geographical issues have influenced this choice but it is suggested that this issue is addressed again to see if the most effective form of care can be delivered in the transition between hospital and home. All countries have problems with specialist provision of longer term stroke and neurology community services but again this is particularly acute in Wales with only one such service in the whole of the country. The situation is scarcely better in Northern Ireland.

% (n) with access to:	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
A stroke/neurology specific early supported discharge multidisciplinary team (Q5.1a)	66% (126)	69% (114)	7% (1)	100% (11)
Team includes 4 or more specialties including PT, OT and SALT	89% (112/126)	90% (103/114)	0% (0/1)	82% (9/11)
Waiting time for PT , OT or SALT less than 48 hours	90% (113/126)	90% (103/114)	100% (1/1)	82% (9/11)

% (n) with access to:	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
A non-specialist early supported discharge multidisciplinary team (Q5.2a)	26% (50)	23% (38)	71% (10)	18% (2)
Team includes 4 or more specialties including PT, OT and SALT	40% (20/50)	39% (15/38)	40% (4/10)	50% (1/2)
Waiting time for PT , OT or SALT less than 48 hours	62% (31/50)	63% (24/38)	60% (6/10)	50% (1/2)

Community Rehabilitation Teams

% (n) with access to:	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
A stroke/neurology specific community rehabilitation team for longer-term management (Q5.3a)	57% (108)	64% (104)	7% (1)	27% (3)
Team includes 4 or more specialties including PT, OT & SALT	81% (87/108)	81% (84/104)	100% (1/1)	67% (2/3)
Waiting time for PT , OT or SALT less than 48 hours	27% (29/108)	28% (29/104)	0% (0/1)	0% (0/3)

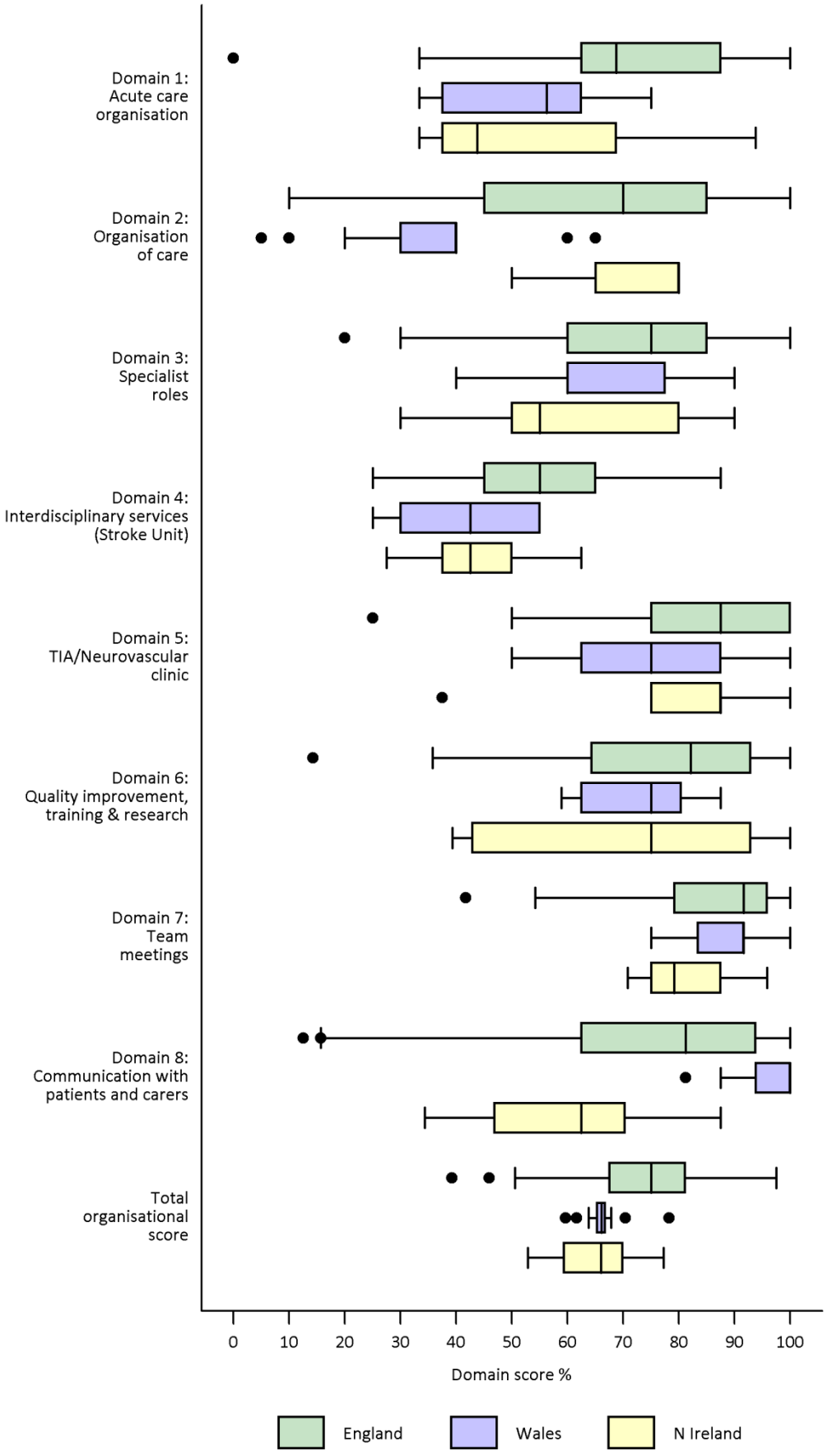
% (n) with access to:	All sites (190)	England (163)	Wales (14)	N. Ireland (11)
A non-specialist community rehabilitation team for longer-term management (Q5.4a)	49% (94)	51% (83)	57% (8)	27% (3)
Team includes 4 or more specialties including PT, OT & SALT	61% (57/94)	60% (50/83)	63% (5/8)	67% (2/3)
Waiting time for PT , OT or SALT less than 48 hours	28% (26/94)	28% (23/83)	38% (3/8)	0% (0/3)

5.7 Distribution of scores for England, Wales and Northern Ireland

In England, the median total organisational score was 75.01, n=163 sites. The inter-quartile range was from 67.5 to 81.2, the 10th to 90th centile range from 59.7 to 86.0, the total range from 39.3 to 97.5.

In Wales, the median total organisational score was 66.1, n=14 sites. The inter-quartile range was from 65.2 to 66.8, total range from 59.6 to 78.2.

In Northern Ireland, the median total organisational score was 66.0, n=11 sites. The inter-quartile range was from 59.3 to 69.9, total range from 52.9 to 77.3.


Domain 1: Acute care organisation
Domain 2: Organisation of care
Domain 3: Specialist roles
Domain 4: Interdisciplinary services (Stroke Unit)
Domain 5: TIA/Neurovascular clinic
Domain 6: Quality improvement, training & research
Domain 7: Team meetings
Domain 8: Communication with patients and carers
Total organisational score
0
10
20
30
40
50
60
70
80
90
100
Domain score %
England
Wales
N Ireland

Section 6: Hospital Results by Region and Country

The tables in this chapter give named hospital results in alphabetical order of trust name by geographical location. The location is Strategic Health Authority Cluster in England which is then subdivided by region, and then Wales, Northern Ireland and the Islands. Please note this describes the self-reported status on **2 July 2012**. These tables should be read in context as part of the full SSNAP Acute Organisational Audit Report 2012 and the full audit questions (appendix 2 of the report).

The tables describe the performance for some selected indicators for each of the 190 participating sites. Each hospital's results are spread across three tables on consecutive pages. These measures each represent an important aspect of good stroke care organisation. The national median for each measure is given in the top row of the table to enable benchmarking.

A scoring system was developed to enable sites to compare their organisation of stroke care with other sites. The scores for 8 separate components of organisation each range from 0 to 100 with 100 being the optimal score. A total organisational score is obtained by calculating the average of the 8 domain scores. The 25% of hospitals with the best stroke care organisation are in the upper quartile, the least well organised 25% of hospitals are in the lower quartile. The middle half lie between the two.

It should be noted that the scoring system has changed from the 2010 National Sentinel Stroke Audit. There are now more stringent criteria to achieve maximum points for several domain elements including proportion of patients thrombolysed, composition of early supported discharge (ESD) and community rehabilitation teams, and 6 or 7 day therapy working. Also, questions which were asked for the first time in 2010 are included in the scoring this time e.g. access to clinical psychology.

The three tables are colour coded to facilitate ease of use. **Table 1** gives information about the type and number of stroke unit within each hospital, the quality of these beds according to the number of acute criteria (max 7), stroke unit features (max. 5) as a marker for quality of all stroke units, the level of thrombolysis provision on-site or with local arrangements, and staffing levels.

Table 2 includes information about the availability of a specialist early supported discharge team and a specialist community rehabilitation team, the availability of a neurovascular/TIA clinic and waiting times to be seen and investigated, quality improvement measures, research and patient involvement. The total organisational score is an aggregated score across all domains.

Table 3 includes information about leadership, participation in SINAP (the acute stroke audit), individual domain scores and overall score.

The key below provides further information about the items included in the tables, including a breakdown of what constitutes each domain.

Heading in Table 1	Description/Further information
Number of stroke beds onsite	
Type 1 beds	Type 1 beds are beds used ***solely*** in the first 72 hours after stroke
Type 2 beds	Type 2 beds are beds used ***solely*** beyond the first 72 hours after stroke
Type 3 beds	Type 3 beds are beds used for ***both*** the first 72 hours after stroke and beyond
Number of 7 acute criteria achieved:	
Type 1 beds Type 3 beds	The 7 *acute* criteria of high quality stroke unit organisation are as follows: • Continuous physiological monitoring (ECG, oximetry, blood pressure) • Immediate access to scanning for urgent stroke patients • Direct admission from A&E/front door • Specialist ward rounds on 7 days a week • Acute stroke protocols/guidelines • Nurses trained in swallow screening • Nurses trained in stroke assessment and management
Number of 5 SUTC criteria achieved	Five key characteristics were chosen from the Stroke Unit Trialists' Collaboration (SUTC) and subsequent papers, as markers of good stroke unit organisation. These are: 1. **Clinician** with specialist knowledge of stroke who are formally recognised as having principal responsibility for stroke services 2. **Formal links with patients and carers** organisations for communication on ALL of the following: • Service provision • Audit • Service reviews and future plans 3. Formal **team meetings**, on average at least once a week for the interchange of information about individual patients on the stroke unit 4. **Patient information** literature displayed in unit/ward on the following: Patient versions of national or local guidelines/standards OR Patient information literature displayed in unit/ward on the following: Social Services local Community Care arrangements 5. There is **funding for external courses** available for nurses and therapists AND At least ONE staff day was paid for between 1 April 2011 and 31 March 2012

Heading in Table 1	Description/Further information
Thrombolysis Provision	
Availability and 24/7 provision offered onsite or in collaboration	Description of the availability of thrombolysis provision onsite and/or in collaboration with a neighbouring site NA = London Acute Stroke Unit which do treat patients in the first 72 hours of care
Staffing Levels	
Qualified nurses on duty at 10am weekdays per 10 SU beds	WTEs (Whole Time Equivalents) per 10 stroke unit beds are expressed by whether each site is above, below the national median. The national medians are rounded to 2 decimal places.
Qualified nurses – WTEs per 10 SU beds	
Physiotherapy - WTEs per 10 beds	
Occupational Therapy - WTEs per 10 beds	
Speech and Language Therapy - WTEs per 10 beds	
6 or 7 day working for at least 2 of PT, OT and SALT	6 or 7 day working for at least two of physiotherapists, occupational therapists and speech and language therapists
Number of programmed activities for stroke consultant physicians	
Junior doctor time per week for all SU beds	Number of half-day sessions of junior doctor time per week for all stroke unit beds
Access to clinical psychologist(s)	

Heading in Table 2	Description/Further information
Early supported discharge	
Stroke specialist ESD team	Access to a stroke/neurology specific specialist early supported discharge team
Specialist ESD team with 4 or more members including PT, OT and SALT	Specialist early supported discharge team with 4 or more members including physiotherapist, occupational therapist and speech and language therapist
Access to PT, OT or SALT in specialist ESD team less than 48 hours	Access to at least one of physiotherapist, occupational therapist or speech and language therapist in specialist early supported discharge team within 48 hours
Community rehabilitation	
Stroke specialist community rehab team	Access to a stroke/neurology specific community rehabilitation team (CRT) for longer term management
Specialist CRT with 4 or more members including PT, OT and SALT	Specialist community rehabilitation team with 4 or more members including physiotherapist, occupational therapist and speech and language therapist

Heading in Table 2	Description/Further information
TIA/Neurovascular service	
Median number of days to wait for appointment in TIA clinic	Average waiting time for an appointment at the time of the audit (2 July 2012)
TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	If both inpatient and outpatient service are provided, the best times are reported
TIA patients seen, investigated and treated **within a week** for LOW RISK patients	If both inpatient and outpatient service are provided, the best times are reported
Quality Improvement	
Report on stroke services produced for trust board in past year	Eg. Regarding the Sentinel Audit/Vital Signs
Number of members of strategic group responsible for stroke	Number of different types of representatives from the following: • Ambulance trust representative • Clinician • Patient representative • Commissioner • Social Services • Stroke Network representative • Trust board member
Number of clinical research studies	Registered with the Research & Development department on the day of the audit (2 July 2012)
Frequency of formal survey of patient/carers views	Stroke-specific surveys
Report produced in past 12 months which analysed views of patients	With regard to stroke services
Patient and carer involvement	
Formal links with patient/carers organisations on service provision, audit, and service reviews AND future plans	

Heading in Table 3	Description/Further information
Leadership	
Clinician with specialist knowledge of stroke formally recognised as having principle responsibility for stroke	
SINAP	
Participating in SINAP (Quarter 6)	Whether or not the site is participating in SINAP (the acute stroke audit). This is measured according to inclusion or otherwise in the 6th Quarterly Public Report (based on July – September 2012 admissions). This includes hospitals in England only. London Acute Stroke Units are not eligible for SINAP as they do not treat stroke patients in the first 72 hours of care.
Acute organisational audit domain scores 2012	
Domain 1: Acute Care Organisation	• presence of 7 acute criteria • level of thrombolysis • percentage of patients thrombolysed
Domain 2: Organisation of Care	• location of stroke patients • ratio of stroke unit beds to the number of inpatients with stroke • presence, composition and timeframe for access to a specialist early supported discharge (ESD) team • presence and composition of a specialist community rehabilitation team
Domain 3: Specialist Roles	• provision of consultant ward rounds for stroke units • seniority of nurses and therapists • patient access to social work expertise, orthoptics, orthotics and podiatry (foot health) • treatment of palliative care patients on the stroke unit • access to clinical psychologists and psychological care • provision of educational and vocational training • whether or not patients stay in bed until assessed by physiotherapist
Domain 4: Inter Disciplinary Services	• availability of qualified nurses and care assistants • availability of qualified therapy staff • 6 or 7 day working for occupational therapy, physiotherapy, speech and language therapy

Heading in Table 3	Description/Further information
Domain 5: TIA/Neurovascular Services	• timeframes in which both HIGH and LOW risk patients can be seen, investigated and treated • usual waiting time to get carotid imaging for both HIGH and LOW risk TIA.
Domain 6: Quality Improvement, Training and Research	• production of a report on the stroke service for trust board • membership of a strategic group responsible for stroke • funding for external courses and study days available for nurses & therapists • participation in clinical research studies
Domain 7: Team Meetings	• frequency of formal team meetings and whether all stroke patients are discussed • membership of the team
Domain 8: Communication with Patients and Carers	• whether patients have access to their management plan • availability of patient information on each of the following topics for stroke units & outpatients o Patient version of national or local guidelines/standards o Social services o Benefits agencies o Secondary prevention advice • whether patients are given a personalised rehabilitation discharge plan • formal links with patients and carers organisations on services provision, audit, and service reviews and future plans • community user group for stroke • policy to give patients a named contact on transfer from hospital to the community • patient/carer views sought on stroke services • report produced within past 12 months which analysed views of patients
Overall score / position	
Total organisational score 2012	The mean average of the 8 individual domain scores
Overall position 2012	Based on overall total organisational score, relative to other sites
Overall position 2010	The site's overall position in the 2010 National Sentinel Stroke Organisational Audit. If there has been a change in configuration of sites since 2010 N/A is given for the appropriate time period. Due to changes in the scoring system this is not directly comparable to performance in 2012.

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	Number of stroke beds onsite			Number of acute criteria achieved		Stroke unit features	Thrombolysis provision	Staffing levels							
Site Name 2012	Type 1 beds	Type 2 beds	Type 3 beds	Type 1 beds	Type 3 beds	Number of 5 SUTC criteria achieved	Availability and 24/7 provision offered onsite or in collaboration	Qualified Nurses - WTEs per 10 SU beds	Physiotherapy - WTEs per 10 beds	Occupational Therapy - WTEs per 10 beds	Speech and Language Therapy - WTEs per 10 beds	6 or 7 day working for at least 2 of PT, OT and SALT	Number of programmed activities for stroke consultant physicians	Junior doctor time per week for all SU beds	Access to clinical psychologist(s)
NATIONAL	0	0	16	6	6	4	90%	8.00	1.31	1.09	0.47	23%	20	26	52%
London															
Barking, Havering and Redbridge University Hospitals NHS Trust	12	45	0	7	NA	5	24/7 on-site	Above median	Above median	Above median	Above median	No	Below median	Below median	Yes
Barnet and Chase Farm Hospitals NHS Trust	NA	45	NA	NA	NA	4	NA	Below median	Below median	Below median	Below median	No	Below median	Below median	No
Barts Health NHS Trust (Newham University Hospital)	NA	20	NA	NA	NA	5	NA	Below median	Above median	Above median	Above median	No	Below median	Above median	Yes
Barts Health NHS Trust (Royal London Hospital)	12	8	0	7	NA	5	24/7 on-site	Above median	Below median	Above median	Above median	Yes	Above median	Above median	Yes
Barts Health NHS Trust (Whipps Cross Hospital)	NA	14	NA	NA	NA	4	NA	Above median	Above median	Above median	Above median	No	Below median	Above median	Yes
Chelsea and Westminster Hospital NHS Foundation Trust	NA	20	NA	NA	NA	5	NA	Below median	Above median	Above median	Above median	No	Below median	Below median	Yes
Croydon Health Services NHS Trust	NA	30	NA	NA	NA	4	NA	Below median	Above median	Above median	Above median	No	Equals median	Above median	Yes
Epsom and St Helier University Hospitals NHS Trust (St Helier Hospital)	NA	24	NA	NA	NA	5	NA	Above median	Below median	Above median	Above median	No	Equals median	Below median	Yes
Guy's and St Thomas' Hospital NHS Foundation Trust	NA	22	NA	NA	NA	5	NA	Above median	Above median	Above median	Above median	No	Below median	Below median	No
Hillingdon Hospitals NHS Foundation Trust	NA	20	NA	NA	NA	4	NA	Above median	Below median	Above median	Above median	No	Below median	Below median	No
Homerton University Hospital NHS Foundation Trust	NA	20	NA	NA	NA	4	NA	Above median	Above median	Above median	Above median	No	Below median	Equals median	Yes
Imperial College Healthcare NHS Trust	20	34	0	7	NA	5	24/7 on-site	Above median	Below median	Above median	Above median	No	Above median	Above median	Yes
King's College Hospital NHS Foundation Trust	12	16	0	7	NA	5	24/7 on-site	Above median	Above median	Above median	Above median	No	Above median	Above median	Yes
Kingston Hospital NHS Trust	NA	20	NA	NA	NA	4	NA	Above median	Above median	Above median	Above median	No	Below median	Below median	No
Lewisham Healthcare NHS Trust	NA	22	NA	NA	NA	4	NA	Above median	Above median	Above median	Above median	No	Below median	Above median	Yes
North Middlesex University Hospital NHS Trust	NA	20	NA	NA	NA	4	NA	Above median	Above median	Above median	Above median	No	Below median	Above median	Yes
North West London Hospitals NHS Trust (Northwick Park Hospital)	16	34	0	6	NA	5	24/7 on-site	Above median	Above median	Above median	Above median	No	Above median	Above median	Yes
Royal Free London NHS Foundation Trust	NA	22	NA	NA	NA	5	NA	Above median	Above median	Above median	Above median	No	Equals median	Above median	Yes
South London Healthcare NHS Trust	14	54	0	7	NA	5	24/7 on-site	Above median	Below median	Below median	Above median	No	Above median	Above median	Yes
St George's Healthcare NHS Trust	20	16	0	7	NA	4	24/7 on-site	Above median	Above median	Above median	Above median	No	Above median	Above median	Yes
University College London Hospitals NHS Foundation Trust	18	17	0	6	NA	4	24/7 on-site	Above median	Above median	Above median	Above median	No	Above median	Above median	Yes
West Middlesex University Hospital NHS Trust	NA	22	NA	NA	NA	4	NA	Above median	Above median	Above median	Below median	No	Below median	Above median	No
Midlands and East - *East Midlands*															
Chesterfield Royal Hospital NHS Foundation Trust	0	0	36	NA	6	5	24/7 on-site	Below median	Above median	Above median	Above median	Yes	Above median	Above median	No
Derby Hospitals NHS Foundation Trust	4	21	30	7	7	5	24/7 on-site	Below median	Above median	Above median	Below median	Yes	Above median	Above median	Yes
Kettering General Hospital NHS Foundation Trust	4	16	10	5	5	5	<24/7 overall, including local arrangements	Above median	Below median	Below median	Below median	No	Below median	Above median	No
Northampton General Hospital NHS Trust	12	27	0	5	NA	5	<24/7 on-site, 24/7 through local arrangements	Above median	Above median	Below median	Below median	Yes	Above median	Above median	No
Nottingham University Hospitals NHS Trust	16	60	0	6	NA	4	24/7 on-site	Above median	Above median	Below median	Above median	No	Above median	Above median	Yes
Sherwood Forest Hospitals NHS Foundation Trust	4	0	20	7	6	4	<24/7 on-site, 24/7 through local arrangements	Above median	Above median	Below median	Below median	Yes	Above median	Above median	Yes

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	Early supported discharge			Community rehabilitation		TIA/Neurovascular service			Quality improvement		Research	Patient involvement		
Site Name 2012	Stroke specialist ESD team	Specialist ESD team with 4 or more members including PT, OT and SALT	Access to PT, OT or SALT in specialist ESD team less than 48 hours	Stroke specialist community rehab team	Specialist CRT with 4 or more members including PT, OT and SALT	Number of days to wait for appointment in TIA clinic	TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	TIA patients seen, investigated and treated **within a week** for LOW RISK patients	Report on stroke services produced for trust board in past year	Number of members of strategic group responsible for stroke	Number of clinical research studies	Frequency of formal survey of patient/carers views	Report produced in past 12 months which analysed views of patients	Formal links with patient/carers organisations on service provision, audit, AND service reviews and future plans
NATIONAL	66%	89%	90%	57%	81%	2	63%	95%	93%	5	4	47%	68%	53%
London														
Barking, Havering and Redbridge University Hospitals NHS Trust	No	No Team	No Team	Yes	No	2	No	Yes	Yes	4	3	1-2 times a year	Yes	Yes
Barnet and Chase Farm Hospitals NHS Trust	No	No Team	No Team	No	No Team	2	No	Yes	Yes	3	3	Continuous	Yes	No
Barts Health NHS Trust (Newham University Hospital)	Yes	Yes	Yes	Yes	Yes	0	Yes	Yes	Yes	7	4	1-2 times a year	Yes	Yes
Barts Health NHS Trust (Royal London Hospital)	Yes	Yes	Yes	Yes	Yes	0	Yes	Yes	Yes	7	15	Continuous	Yes	Yes
Barts Health NHS Trust (Whipps Cross Hospital)	Yes	Yes	Yes	Yes	Yes	2	No	Yes	Yes	3	5	1-2 times a year	Yes	No
Chelsea and Westminster Hospital NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	5	5	Continuous	Yes	Yes
Croydon Health Services NHS Trust	Yes	Yes	Yes	Yes	Yes	0	No	Yes	Yes	6	5	Continuous	Yes	No
Epsom and St Helier University Hospitals NHS Trust (St Helier Hospital)	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	5	7	Continuous	Yes	Yes
Guy's and St Thomas' Hospital NHS Foundation Trust	Yes	Yes	Yes	Yes	No	3	No	Yes	Yes	3	10	Continuous	Yes	Yes
Hillingdon Hospitals NHS Foundation Trust	No	No Team	No Team	No	No Team	0	No	Yes	Yes	3	4	Continuous	Yes	No
Homerton University Hospital NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	1	No	Yes	Yes	3	1	1-2 times a year	No	No
Imperial College Healthcare NHS Trust	Yes	Yes	Yes	Yes	Yes	4	Yes	Yes	Yes	4	26	Continuous	Yes	Yes
King's College Hospital NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	0	Yes	Yes	Yes	6	17	Continuous	Yes	Yes
Kingston Hospital NHS Trust	Yes	No	Yes	Yes	Yes	2	No	Yes	Yes	3	4	1-2 times a year	Yes	No
Lewisham Healthcare NHS Trust	Yes	Yes	Yes	No	No Team	3	No	Yes	Yes	5	6	1-2 times a year	Yes	No
North Middlesex University Hospital NHS Trust	No	No Team	No Team	Yes	Yes	14	Yes	No	No	3	5	Less than once a year	No	No
North West London Hospitals NHS Trust (Northwick Park Hospital)	No	No Team	No Team	No	No Team	2	Yes	Yes	Yes	4	7	More than 4 a year	Yes	Yes
Royal Free London NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	6	Yes	Yes	Yes	4	2	Continuous	Yes	Yes
South London Healthcare NHS Trust	No	No Team	No Team	Yes	Yes	3	Yes	Yes	Yes	7	5	1-2 times a year	Yes	Yes
St George's Healthcare NHS Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	4	24	More than 4 a year	Yes	No
University College London Hospitals NHS Foundation Trust	Yes	Yes	No	Yes	Yes	1	Yes	Yes	No	4	15	Continuous	No	No
West Middlesex University Hospital NHS Trust	No	No Team	No Team	Yes	Yes	6	Yes	Yes	Yes	3	6	3-4 times a year	Yes	Yes
Midlands and East - *East Midlands*														
Chesterfield Royal Hospital NHS Foundation Trust	Yes	No	Yes	No	No Team	5	Yes	Yes	Yes	2	8	Less than once a year	No	Yes
Derby Hospitals NHS Foundation Trust	Yes	Yes	No	Yes	Yes	0	Yes	Yes	Yes	4	7	1-2 times a year	Yes	Yes
Kettering General Hospital NHS Foundation Trust	Yes	Yes	Yes	No	No Team	1	Yes	Yes	Yes	7	3	1-2 times a year	Yes	Yes
Northampton General Hospital NHS Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	5	4	1-2 times a year	Yes	Yes
Nottingham University Hospitals NHS Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	7	13	More than 4 a year	Yes	No
Sherwood Forest Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	3	Yes	Yes	Yes	1	3	Continuous	Yes	No

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	Leadership	SINAP	Acute organisational audit domain scores 2012										
Site Name 2012	Stroke clinician recognised as having principle responsibility for stroke	Participating in SINAP (England only)	Domain 1 Acute Care Organisation	Domain 2 Organisation of care	Domain 3 Specialist Roles	Domain 4 Inter Disciplinary Services	Domain 5 TIA/ Neurovascular service	Domain 6 QI, Training and Research	Domain 7 Team Meetings	Domain 8 Communication with Patients and Carers	Total organisational score 2012	Overall position **2010**	Overall position **2012**
NATIONAL	100%	56%	68.8	65.0	70.0	52.5	87.5	80.4	87.5	81.3	73.3		
London													
Barking, Havering and Redbridge University Hospitals NHS Trust	Yes	Yes	93.8	45	80	50	75	76.8	100	85.9	75.8	Upper quartile	Middle half
Barnet and Chase Farm Hospitals NHS Trust	Yes	NA	75	40	62.5	27.5	75	73.2	95.8	93.8	67.8	Middle half	Middle half
Barts Health NHS Trust (Newham University Hospital)	Yes	NA	100	100	100	67.5	87.5	100	100	93.8	93.6	Middle half	Upper quartile
Barts Health NHS Trust (Royal London Hospital)	Yes	Yes	100	100	100	80	100	100	100	100	97.5	NA	Upper quartile
Barts Health NHS Trust (Whipps Cross Hospital)	Yes	NA	100	100	87.5	70	75	85.7	95.8	81.3	86.9	Upper quartile	Upper quartile
Chelsea and Westminster Hospital NHS Foundation Trust	Yes	NA	93.8	100	62.5	72.5	100	92.9	100	100	90.2	Upper quartile	Upper quartile
Croydon Health Services NHS Trust	Yes	NA	100	100	100	55	75	96.4	91.7	90.6	88.6	Upper quartile	Upper quartile
Epsom and St Helier University Hospitals NHS Trust (St Helier Hospital)	Yes	NA	100	100	87.5	60	100	92.9	100	100	92.5	Middle half	Upper quartile
Guy's and St Thomas' Hospital NHS Foundation Trust	Yes	NA	100	90	62.5	62.5	75	85.7	95.8	96.9	83.6	Upper quartile	Upper quartile
Hillingdon Hospitals NHS Foundation Trust	Yes	NA	93.8	40	75	52.5	75	85.7	79.2	93.8	74.4	Middle half	Middle half
Homerton University Hospital NHS Foundation Trust	Yes	NA	100	100	87.5	65	75	73.2	95.8	75	83.9	Middle half	Upper quartile
Imperial College Healthcare NHS Trust	Yes	Yes	93.8	100	100	60	100	89.3	100	100	92.9	Upper quartile	Upper quartile
King's College Hospital NHS Foundation Trust	Yes	Yes	100	100	100	67.5	100	96.4	100	100	95.5	Upper quartile	Upper quartile
Kingston Hospital NHS Trust	Yes	NA	100	90	50	52.5	75	85.7	87.5	59.4	75	Middle half	Middle half
Lewisham Healthcare NHS Trust	Yes	NA	100	50	81.3	80	75	92.9	83.3	84.4	80.9	Lower quartile	Upper quartile
North Middlesex University Hospital NHS Trust	Yes	NA	75	50	71.9	70	75	60.7	83.3	62.5	68.6	Middle half	Middle half
North West London Hospitals NHS Trust (Northwick Park Hospital)	Yes	Yes	75	40	80	65	100	89.3	100	93.8	80.4	Upper quartile	Middle half
Royal Free London NHS Foundation Trust	Yes	NA	75	100	87.5	70	100	76.8	100	95.3	88.1	Upper quartile	Upper quartile
South London Healthcare NHS Trust	Yes	Yes	93.8	60	77.5	65	100	100	95.8	84.4	84.6	Lower quartile	Upper quartile
St George's Healthcare NHS Trust	Yes	Yes	100	100	97.5	65	100	89.3	95.8	89.1	92.1	Upper quartile	Upper quartile
University College London Hospitals NHS Foundation Trust	Yes	Yes	75	60	100	82.5	100	64.3	100	75	82.1	Upper quartile	Upper quartile
West Middlesex University Hospital NHS Trust	Yes	NA	93.8	30	50	27.5	100	85.7	95.8	84.4	70.9	Middle half	Middle half
Midlands and East - *East Midlands*													
Chesterfield Royal Hospital NHS Foundation Trust	Yes	Yes	62.5	35	60	65	100	82.1	95.8	75	71.9	Middle half	Middle half
Derby Hospitals NHS Foundation Trust	Yes	No	93.8	80	90	67.5	100	89.3	66.7	90.6	84.7	Upper quartile	Upper quartile
Kettering General Hospital NHS Foundation Trust	Yes	Yes	50	60	60	37.5	87.5	62.5	91.7	87.5	67.1	Lower quartile	Middle half
Northampton General Hospital NHS Trust	Yes	Yes	66.7	80	80	55	100	92.9	95.8	79.7	81.3	Middle half	Upper quartile
Nottingham University Hospitals NHS Trust	Yes	No	68.8	70	85	55	87.5	100	91.7	78.1	79.5	Upper quartile	Middle half
Sherwood Forest Hospitals NHS Foundation Trust	Yes	Yes	100	80	80	67.5	100	66.1	75	87.5	82	Middle half	Upper quartile

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	Number of stroke beds onsite			Number of acute criteria achieved		Stroke unit features	Thrombolysis provision	Staffing levels							
Site Name 2012	Type 1 beds	Type 2 beds	Type 3 beds	Type 1 beds	Type 3 beds	Number of 5 SUTC criteria achieved	Availability and 24/7 provision offered onsite or in collaboration	Qualified Nurses - WTEs per 10 SU beds	Physiotherapy - WTEs per 10 beds	Occupational Therapy - WTEs per 10 beds	Speech and Language Therapy - WTEs per 10 beds	6 or 7 day working for at least 2 of PT, OT and SALT	Number of programmed activities for stroke consultant physicians	Junior doctor time per week for all SU beds	Access to clinical psychologist(s)
NATIONAL	0	0	16	6	6	4	90%	8.00	1.31	1.09	0.47	23%	20	26	52%
United Lincolnshire Hospitals NHS Trust (Grantham and District Hospital)	0	5	0	NA	NA	3	No provison	Below median	Above median	Above median	Below median	No	Below median	Below median	Yes
United Lincolnshire Hospitals NHS Trust (Lincoln County)	4	14	10	6	6	5	<24/7 on-site, no local arrangements	Below median	Below median	Above median	Above median	Yes	Above median	Below median	No
United Lincolnshire Hospitals NHS Trust (Pilgrim Hospital)	0	0	28	NA	6	4	<24/7 on-site, no local arrangements	Below median	Above median	Above median	Above median	Yes	Above median	Below median	No
University Hospitals of Leicester NHS Trust	8	38	0	6	NA	3	24/7 on-site	Below median	Below median	Below median	Below median	Yes	Above median	Above median	Yes
Midlands and East - *East of England*															
Basildon and Thurrock University Hospitals NHS Foundation Trust	7	24	20	6	6	4	24/7 on-site	Below median	Below median	Below median	Above median	No	Above median	Above median	No
Bedford Hospital NHS Trust	0	0	18	NA	6	5	<24/7 on-site, 24/7 through local arrangements	Above median	Below median	Below median	Below median	No	Below median	Equals median	Yes
Cambridge University Hospitals NHS Foundation Trust	8	18	6	6	3	5	24/7 on-site	Above median	Above median	Above median	Above median	No	Above median	Below median	Yes
Colchester Hospital University NHS Foundation Trust	2	0	31	7	7	3	24/7 on-site	Above median	Below median	Below median	Above median	No	Above median	Above median	Yes
East and North Hertfordshire NHS Trust	0	0	25	NA	6	4	24/7 on-site	Below median	Above median	Above median	Above median	No	Above median	Below median	No
Hinchingbrooke Health Care NHS Trust	0	0	25	NA	4	4	None on-site, 24/7 through local arrangements	Below median	Below median	Below median	Below median	No	Below median	Above median	No
Ipswich Hospital NHS Trust	4	21	0	6	NA	4	24/7 on-site	Above median	Above median	Below median	Below median	No	Above median	Below median	No
James Paget University Hospitals NHS Foundation Trust	4	30	0	6	NA	3	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	No
Luton and Dunstable Hospital NHS Foundation Trust	8	0	20	7	6	3	24/7 on-site	Below median	Below median	Below median	Below median	Yes	Above median	Above median	Yes
Mid Essex Hospital Services NHS Trust	6	0	13	6	5	2	24/7 on-site	Below median	Above median	Above median	Above median	No	Below median	Above median	No
Norfolk and Norwich University Hospitals NHS Foundation Trust	12	24	0	4	NA	4	24/7 on-site	Above median	Below median	Below median	Above median	Yes	Above median	Above median	Yes
Peterborough and Stamford Hospitals NHS Foundation Trust	6	7	22	5	5	4	24/7 on-site	Below median	Below median	Above median	Below median	Yes	Above median	Above median	No
Princess Alexandra Hospital NHS Trust	4	11	0	5	NA	3	<24/7 on-site, 24/7 through local arrangements	Above median	Above median	Above median	Above median	No	Below median	Below median	No
Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	0	0	29	NA	7	4	24/7 on-site	Above median	Below median	Below median	Above median	Yes	Equals median	Above median	Yes
Southend University Hospital NHS Foundation Trust	0	0	40	NA	7	4	24/7 on-site	Below median	Above median	Below median	Above median	Yes	Above median	Above median	No
West Hertfordshire Hospitals NHS Trust	13	19	0	5	NA	4	24/7 on-site	Above median	Above median	Above median	Above median	No	Above median	Above median	No
West Suffolk Hospital NHS Foundation Trust	0	0	24	NA	6	5	24/7 on-site	Above median	Below median	Above median	Below median	No	Above median	Above median	No
Midlands and East - *West Midlands*															
Burton Hospitals NHS Foundation Trust	0	0	21	NA	6	3	<24/7 on-site, no local arrangements	Above median	Above median	Above median	Below median	No	Equals median	Above median	No
Dudley Group NHS Foundation Trust	6	28	6	6	6	5	24/7 on-site	Below median	Below median	Below median	Above median	Yes	Above median	Above median	Yes
George Eliot Hospital NHS Trust	0	0	27	NA	5	5	None on-site, 24/7 through local arrangements	Above median	Below median	Below median	Above median	No	Below median	Below median	Yes
Heart of England NHS Foundation Trust (Birmingham Heartlands and Solihull Hospitals)	13	26	24	5	6	5	24/7 on-site	Below median	Below median	Below median	Below median	Yes	Above median	Above median	Yes

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	Early supported discharge			Community rehabilitation		TIA/Neurovascular service			Quality improvement		Research	Patient involvement		
Site Name 2012	Stroke specialist ESD team	Specialist ESD team with 4 or more members including PT, OT and SALT	Access to PT, OT or SALT in specialist ESD team less than 48 hours	Stroke specialist community rehab team	Specialist CRT with 4 or more members including PT, OT and SALT	Number of days to wait for appointment in TIA clinic	TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	TIA patients seen, investigated and treated **within a week** for LOW RISK patients	Report on stroke services produced for trust board in past year	Number of members of strategic group responsible for stroke	Number of clinical research studies	Frequency of formal survey of patient/carers views	Report produced in past 12 months which analysed views of patients	Formal links with patient/carers organisations on service provision, audit, AND service reviews and future plans
NATIONAL	66%	89%	90%	57%	81%	2	63%	95%	93%	5	4	47%	68%	53%
United Lincolnshire Hospitals NHS Trust (Grantham and District Hospital)	Yes	Yes	Yes	No	No Team	3	No	Yes	No	4	0	1-2 times a year	Yes	No
United Lincolnshire Hospitals NHS Trust (Lincoln County)	Yes	No	Yes	No	No Team	1	No	Yes	Yes	4	5	1-2 times a year	Yes	Yes
United Lincolnshire Hospitals NHS Trust (Pilgrim Hospital)	Yes	No	Yes	No	No Team	1	Yes	Yes	Yes	4	4	1-2 times a year	No	No
University Hospitals of Leicester NHS Trust	Yes	Yes	Yes	No	No Team	1	Yes	Yes	Yes	NA	10	Continuous	Yes	No
Midlands and East - *East of England*														
Basildon and Thurrock University Hospitals NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	3	Yes	Yes	Yes	4	3	Less than once a year	No	No
Bedford Hospital NHS Trust	No	No Team	No Team	Yes	No	1	No	Yes	Yes	6	4	Never	No	Yes
Cambridge University Hospitals NHS Foundation Trust	Yes	Yes	No	No	No Team	3	Yes	No	Yes	NA	19	More than 4 a year	Yes	Yes
Colchester Hospital University NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	3	Yes	Yes	Yes	7	5	More than 4 a year	Yes	No
East and North Hertfordshire NHS Trust	No	No Team	No Team	Yes	No	5	Yes	Yes	Yes	6	3	Continuous	Yes	No
Hinchingbrooke Health Care NHS Trust	No	No Team	No Team	Yes	No	4	No	No	No	4	1	Never	No	No
Ipswich Hospital NHS Trust	No	No Team	No Team	Yes	Yes	1	Yes	Yes	Yes	1	5	1-2 times a year	Yes	No
James Paget University Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	0	Yes	Yes	Yes	6	3	1-2 times a year	Yes	No
Luton and Dunstable Hospital NHS Foundation Trust	No	No Team	No Team	Yes	Yes	0	Yes	Yes	Yes	6	9	1-2 times a year	No	No
Mid Essex Hospital Services NHS Trust	Yes	Yes	Yes	No	No Team	0	Yes	Yes	No	6	5	Less than once a year	No	No
Norfolk and Norwich University Hospitals NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	2	Yes	Yes	No	4	4	Less than once a year	No	No
Peterborough and Stamford Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	0	Yes	Yes	Yes	5	3	Continuous	Yes	No
Princess Alexandra Hospital NHS Trust	Yes	Yes	Yes	No	No Team	1	Yes	Yes	Yes	6	4	Continuous	Yes	No
Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	Yes	Yes	No	Yes	Yes	1	Yes	Yes	Yes	5	2	1-2 times a year	Yes	No
Southend University Hospital NHS Foundation Trust	No	No Team	No Team	Yes	No	1	Yes	Yes	Yes	5	8	3-4 times a year	Yes	No
West Hertfordshire Hospitals NHS Trust	No	No Team	No Team	Yes	Yes	2	No	Yes	Yes	6	6	3-4 times a year	Yes	No
West Suffolk Hospital NHS Foundation Trust	No	No Team	No Team	No	No Team	0	No	Yes	Yes	4	4	More than 4 a year	Yes	Yes
Midlands and East - *West Midlands*														
Burton Hospitals NHS Foundation Trust	Yes	No	Yes	Yes	No	1	Yes	Yes	Yes	NA	4	Less than once a year	No	No
Dudley Group NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	0	Yes	Yes	Yes	6	2	1-2 times a year	Yes	Yes
George Eliot Hospital NHS Trust	Yes	Yes	Yes	No	No Team	1	Yes	Yes	Yes	3	3	Continuous	Yes	Yes
Heart of England NHS Foundation Trust (Birmingham Heartlands and Solihull Hospitals)	Yes	Yes	Yes	Yes	Yes	7	Yes	Yes	Yes	7	6	1-2 times a year	Yes	Yes

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	Leadership	SINAP	Acute organisational audit domain scores 2012										
Site Name 2012	Stroke clinician recognised as having principle responsibility for stroke	Participating in SINAP (England only)	Domain 1 Acute Care Organisation	Domain 2 Organisation of care	Domain 3 Specialist Roles	Domain 4 Inter Disciplinary Services	Domain 5 TIA/ Neurovascular service	Domain 6 QI, Training and Research	Domain 7 Team Meetings	Domain 8 Communication with Patients and Carers	Total organisational score 2012	Overall position **2010**	Overall position **2012**
NATIONAL	100%	56%	68.8	65.0	70.0	52.5	87.5	80.4	87.5	81.3	73.3		
United Lincolnshire Hospitals NHS Trust (Grantham and District Hospital)	Yes	No	0	45	50	60	50	14.3	79.2	68.8	45.9	Lower quartile	Lower quartile
United Lincolnshire Hospitals NHS Trust (Lincoln County)	Yes	No	50	50	70	65	75	89.3	75	93.8	71	Middle half	Middle half
United Lincolnshire Hospitals NHS Trust (Pilgrim Hospital)	Yes	No	50	70	60	70	100	89.3	75	53.1	70.9	Middle half	Middle half
University Hospitals of Leicester NHS Trust	Yes	No	68.8	60	80	45	100	50	70.8	59.4	66.7	Middle half	Middle half
Midlands and East - *East of England*													
Basildon and Thurrock University Hospitals NHS Foundation Trust	Yes	Yes	68.8	100	70	50	100	64.3	91.7	59.4	75.5	Middle half	Middle half
Bedford Hospital NHS Trust	Yes	Yes	66.7	45	75	42.5	75	96.4	75	73.4	68.6	Middle half	Middle half
Cambridge University Hospitals NHS Foundation Trust	Yes	No	75	40	75	52.5	62.5	75	91.7	100	71.5	Upper quartile	Middle half
Colchester Hospital University NHS Foundation Trust	Yes	Yes	93.8	100	90	55	100	75	91.7	90.6	87	Upper quartile	Upper quartile
East and North Hertfordshire NHS Trust	Yes	Yes	68.8	15	70	57.5	100	83.9	91.7	93.8	72.6	Lower quartile	Middle half
Hinchingbrooke Health Care NHS Trust	Yes	No	33.3	45	50	25	25	39.3	79.2	17.2	39.2	Lower quartile	Lower quartile
Ipswich Hospital NHS Trust	Yes	Yes	68.8	60	60	42.5	100	78.6	91.7	84.4	73.2	Lower quartile	Middle half
James Paget University Hospitals NHS Foundation Trust	Yes	No	68.8	60	60	30	100	83.9	70.8	40.6	64.3	Lower quartile	Lower quartile
Luton and Dunstable Hospital NHS Foundation Trust	Yes	Yes	100	60	90	52.5	100	96.4	79.2	53.1	78.9	Middle half	Middle half
Mid Essex Hospital Services NHS Trust	Yes	Yes	75	80	70	45	100	46.4	95.8	53.1	70.7	Middle half	Middle half
Norfolk and Norwich University Hospitals NHS Foundation Trust	Yes	No	43.8	70	50	80	87.5	64.3	91.7	31.3	64.8	Upper quartile	Lower quartile
Peterborough and Stamford Hospitals NHS Foundation Trust	Yes	Yes	62.5	60	50	50	87.5	80.4	83.3	62.5	67	Middle half	Middle half
Princess Alexandra Hospital NHS Trust	Yes	Yes	66.7	60	70	70	87.5	71.4	95.8	93.8	76.9	Middle half	Middle half
Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	Yes	No	100	80	100	65	100	80.4	100	87.5	89.1	Middle half	Upper quartile
Southend University Hospital NHS Foundation Trust	Yes	Yes	100	45	80	65	100	92.9	91.7	87.5	82.8	Upper quartile	Upper quartile
West Hertfordshire Hospitals NHS Trust	Yes	Yes	75	30	60	55	75	96.4	95.8	82.8	71.3	Middle half	Middle half
West Suffolk Hospital NHS Foundation Trust	Yes	No	68.8	40	50	45	75	89.3	83.3	85.9	67.2	Lower quartile	Middle half
Midlands and East - *West Midlands*													
Burton Hospitals NHS Foundation Trust	Yes	Yes	50	50	60	55	100	50	79.2	12.5	57.1	Middle half	Lower quartile
Dudley Group NHS Foundation Trust	Yes	No	75	80	90	70	100	83.9	75	87.5	82.7	Upper quartile	Upper quartile
George Eliot Hospital NHS Trust	Yes	Yes	66.7	60	90	50	100	73.2	79.2	98.4	77.2	Middle half	Middle half
Heart of England NHS Foundation Trust (Birmingham Heartlands and Solihull Hospitals)	Yes	Yes	62.5	80	80	57.5	100	100	87.5	78.1	80.7	Middle half	Upper quartile

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	Number of stroke beds onsite			Number of acute criteria achieved		Stroke unit features	Thrombolysis provision	Staffing levels							
Site Name 2012	Type 1 beds	Type 2 beds	Type 3 beds	Type 1 beds	Type 3 beds	Number of 5 SUTC criteria achieved	Availability and 24/7 provision offered onsite or in collaboration	Qualified Nurses - WTEs per 10 SU beds	Physiotherapy - WTEs per 10 beds	Occupational Therapy - WTEs per 10 beds	Speech and Language Therapy - WTEs per 10 beds	6 or 7 day working for at least 2 of PT, OT and SALT	Number of programmed activities for stroke consultant physicians	Junior doctor time per week for all SU beds	Access to clinical psychologist(s)
NATIONAL	0	0	16	6	6	4	90%	8.00	1.31	1.09	0.47	23%	20	26	52%
Heart of England NHS Foundation Trust (Good Hope Hospital)	6	22	8	5	4	4	<24/7 on-site, 24/7 through local arrangements	Below median	Above median	Below median	Below median	Yes	Above median	Above median	No
Royal Wolverhampton Hospitals NHS Trust	3	0	20	7	6	5	24/7 on-site	Above median	Above median	Below median	Below median	Yes	Above median	Below median	Yes
Sandwell and West Birmingham Hospitals NHS Trust (City Hospital)	0	0	33	NA	6	3	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	Yes
Sandwell and West Birmingham Hospitals NHS Trust (Sandwell District Hospital)	4	30	0	7	NA	4	24/7 on-site	Above median	Above median	Below median	Below median	No	Equals median	Below median	Yes
Shrewsbury and Telford Hospital NHS Trust	12	36	0	5	NA	4	24/7 on-site	Above median	Below median	Below median	Above median	No	Above median	Above median	No
South Warwickshire NHS Foundation Trust	0	0	20	NA	5	5	None on-site, 24/7 through local arrangements	Below median	Below median	Below median	Above median	No	Equals median	Above median	Yes
University Hospital of North Staffordshire NHS Trust combined with Staffordshire and Stoke on Trent Partnership NHS Trust	0	0	32	NA	6	4	24/7 on-site	Above median	Below median	Below median	Below median	Yes	Above median	Above median	Yes
University Hospitals Birmingham NHS Foundation Trust in collaboration with Birmingham Community Healthcare NHS Trust	0	0	18	NA	5	2	24/7 on-site	Below median	Below median	Below median	Above median	No	Equals median	Below median	Yes
University Hospitals Coventry and Warwickshire NHS Trust	6	30	0	7	NA	4	24/7 on-site	Above median	Above median	Above median	Equals median	Yes	Above median	Above median	Yes
Walsall Healthcare NHS Trust	0	0	28	NA	6	4	24/7 on-site	Above median	Above median	Above median	Below median	Yes	Equals median	Above median	Yes
Worcestershire Acute Hospitals NHS Trust (Alexandra Hospital Redditch)	0	0	18	NA	4	3	24/7 on-site	Above median	Above median	Below median	Above median	No	Below median	Below median	No
Worcestershire Acute Hospitals NHS Trust (Worcester Royal Hospital)	2	14	0	4	NA	4	24/7 on-site	Above median	Below median	Above median	Below median	No	Below median	Below median	No
Wye Valley NHS Trust	0	0	12	NA	6	4	24/7 on-site	Below median	Above median	Above median	Below median	No	Below median	Below median	No
North of England - *North East*															
City Hospitals Sunderland NHS Foundation Trust	9	13	27	7	7	5	24/7 on-site	Above median	Below median	Below median	Below median	No	Above median	Above median	No
County Durham and Darlington NHS Foundation Trust	4	0	20	7	7	5	24/7 on-site	Above median	Below median	Below median	Above median	No	Above median	Below median	No
Gateshead Health NHS Foundation Trust	0	0	24	NA	7	4	24/7 on-site	Above median	Below median	Above median	Below median	No	Equals median	Above median	Yes
Newcastle upon Tyne Hospitals NHS Foundation Trust	6	46	0	7	NA	5	24/7 on-site	Below median	Below median	Below median	Above median	No	Above median	Above median	Yes
North Tees and Hartlepool NHS Foundation Trust	0	0	32	NA	6	5	24/7 on-site	Below median	Below median	Below median	Below median	Yes	Below median	Above median	Yes
Northumbria Healthcare NHS Foundation Trust (Hexham Hospital)	0	0	15	NA	6	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	No
Northumbria Healthcare NHS Foundation Trust (North Tyneside General Hospital)	0	0	29	NA	6	5	24/7 on-site	Below median	Below median	Below median	Above median	Yes	Below median	Below median	No
Northumbria Healthcare NHS Foundation Trust (Wansbeck General Hospital)	0	0	27	NA	6	5	24/7 on-site	Below median	Below median	Above median	Above median	Yes	Below median	Below median	No
South Tees Hospitals NHS Foundation Trust	6	23	0	7	NA	5	24/7 on-site	Below median	Above median	Above median	Above median	Yes	Above median	Below median	Yes
South Tyneside NHS Foundation Trust	0	0	20	NA	6	4	24/7 on-site	Above median	Above median	Below median	Above median	No	Below median	Below median	Yes

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	Early supported discharge			Community rehabilitation		TIA/Neurovascular service			Quality improvement		Research	Patient involvement		
Site Name 2012	Stroke specialist ESD team	Specialist ESD team with 4 or more members including PT, OT and SALT	Access to PT, OT or SALT in specialist ESD team less than 48 hours	Stroke specialist community rehab team	Specialist CRT with 4 or more members including PT, OT and SALT	Number of days to wait for appointment in TIA clinic	TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	TIA patients seen, investigated and treated **within a week** for LOW RISK patients	Report on stroke services produced for trust board in past year	Number of members of strategic group responsible for stroke	Number of clinical research studies	Frequency of formal survey of patient/carers views	Report produced in past 12 months which analysed views of patients	Formal links with patient/carers organisations on service provision, audit, AND service reviews and future plans
NATIONAL	66%	89%	90%	57%	81%	2	63%	95%	93%	5	4	47%	68%	53%
Heart of England NHS Foundation Trust (Good Hope Hospital)	Yes	No	Yes	Yes	Yes	12	Yes	Yes	Yes	7	2	1-2 times a year	Yes	Yes
Royal Wolverhampton Hospitals NHS Trust	Yes	Yes	Yes	Yes	No	0	Yes	Yes	Yes	5	8	1-2 times a year	Yes	Yes
Sandwell and West Birmingham Hospitals NHS Trust (City Hospital)	Yes	Yes	No	Yes	Yes	1	Yes	Yes	Yes	4	4	Continuous	Yes	No
Sandwell and West Birmingham Hospitals NHS Trust (Sandwell District Hospital)	Yes	Yes	Yes	No	No Team	3	Yes	Yes	Yes	5	2	1-2 times a year	Yes	No
Shrewsbury and Telford Hospital NHS Trust	Yes	No	Yes	No	No Team	4	No	Yes	Yes	4	5	Never	No	No
South Warwickshire NHS Foundation Trust	No	No Team	No Team	Yes	Yes	4	Yes	Yes	Yes	6	2	More than 4 a year	Yes	Yes
University Hospital of North Staffordshire NHS Trust combined with Staffordshire and Stoke on Trent Partnership NHS Trust	Yes	No	Yes	Yes	No	1	Yes	Yes	Yes	4	15	More than 4 a year	Yes	No
University Hospitals Birmingham NHS Foundation Trust in collaboration with Birmingham Community Healthcare NHS Trust	No	No Team	No Team	Yes	Yes	0	No	Yes	Yes	1	7	Never	No	No
University Hospitals Coventry and Warwickshire NHS Trust	No	No Team	No Team	Yes	Yes	0	Yes	Yes	Yes	5	7	Continuous	Yes	No
Walsall Healthcare NHS Trust	Yes	Yes	Yes	Yes	Yes	0	Yes	Yes	Yes	6	4	More than 4 a year	Yes	No
Worcestershire Acute Hospitals NHS Trust (Alexandra Hospital Redditch)	Yes	Yes	No	No	No Team	5	No	Yes	Yes	3	0	More than 4 a year	Yes	No
Worcestershire Acute Hospitals NHS Trust (Worcester Royal Hospital)	Yes	Yes	Yes	Yes	Yes	7	No	Yes	Yes	6	0	Less than once a year	Yes	No
Wye Valley NHS Trust	No	No Team	No Team	Yes	Yes	1	No	Yes	Yes	2	3	More than 4 a year	Yes	No
North of England - *North East*														
City Hospitals Sunderland NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	2	No	Yes	Yes	6	7	1-2 times a year	Yes	Yes
County Durham and Darlington NHS Foundation Trust	No	No Team	No Team	Yes	Yes	2	Yes	Yes	Yes	6	6	3-4 times a year	No	Yes
Gateshead Health NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	5	No	Yes	Yes	5	5	1-2 times a year	Yes	Yes
Newcastle upon Tyne Hospitals NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	0	Yes	Yes	Yes	5	16	Continuous	Yes	Yes
North Tees and Hartlepool NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	6	5	1-2 times a year	Yes	Yes
Northumbria Healthcare NHS Foundation Trust (Hexham Hospital)	No	No Team	No Team	No	No Team	1	Yes	Yes	Yes	6	2	More than 4 a year	Yes	Yes
Northumbria Healthcare NHS Foundation Trust (North Tyneside General Hospital)	Yes	Yes	Yes	Yes	Yes	2	Yes	Yes	Yes	6	12	More than 4 a year	Yes	Yes
Northumbria Healthcare NHS Foundation Trust (Wansbeck General Hospital)	Yes	Yes	Yes	No	No Team	5	Yes	Yes	Yes	6	12	More than 4 a year	Yes	Yes
South Tees Hospitals NHS Foundation Trust	No	No Team	No Team	No	No Team	1	Yes	Yes	Yes	5	5	1-2 times a year	Yes	Yes
South Tyneside NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	3	5	Continuous	Yes	No

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	Leadership	**SINAP**	**Acute organisational audit domain scores 2012**										
Site Name 2012	Stroke clinician recognised as having principle responsibility for stroke	Participating in SINAP (England only)	Domain 1 Acute Care Organisation	Domain 2 Organisation of care	Domain 3 Specialist Roles	Domain 4 Inter Disciplinary Services	Domain 5 TIA/ Neurovascular service	Domain 6 QI, Training and Research	Domain 7 Team Meetings	Domain 8 Communication with Patients and Carers	Total organisational score 2012	Overall position **2010**	Overall position **2012**
NATIONAL	100%	56%	68.8	65.0	70.0	52.5	87.5	80.4	87.5	81.3	73.3		
Heart of England NHS Foundation Trust (Good Hope Hospital)	Yes	No	66.7	85	60	42.5	100	62.5	91.7	90.6	74.9	Lower quartile	Middle half
Royal Wolverhampton Hospitals NHS Trust	Yes	Yes	100	65	90	75	100	92.9	70.8	93.8	85.9	Middle half	Upper quartile
Sandwell and West Birmingham Hospitals NHS Trust (City Hospital)	Yes	Yes	62.5	60	67.5	47.5	100	64.3	83.3	89.1	71.8	Upper quartile	Middle half
Sandwell and West Birmingham Hospitals NHS Trust (Sandwell District Hospital)	Yes	Yes	93.8	80	80	50	100	67.9	79.2	81.3	79	Middle half	Middle half
Shrewsbury and Telford Hospital NHS Trust	Yes	Yes	68.8	45	50	32.5	75	89.3	79.2	25	58.1	Lower quartile	Lower quartile
South Warwickshire NHS Foundation Trust	Yes	No	66.7	40	77.5	47.5	100	71.4	79.2	87.5	71.2	Lower quartile	Middle half
University Hospital of North Staffordshire NHS Trust combined with Staffordshire and Stoke on Trent Partnership NHS Trust	Yes	Yes	75	70	95	55	100	89.3	70.8	75	78.8	Upper quartile	Middle half
University Hospitals Birmingham NHS Foundation Trust in collaboration with Birmingham Community Healthcare NHS Trust	Yes	No	68.8	60	70	52.5	75	53.6	75	15.6	58.8	Middle half	Lower quartile
University Hospitals Coventry and Warwickshire NHS Trust	Yes	No	100	60	80	70	100	92.9	91.7	93.8	86	Middle half	Upper quartile
Walsall Healthcare NHS Trust	Yes	Yes	68.8	100	80	70	100	96.4	79.2	93.8	86	Middle half	Upper quartile
Worcestershire Acute Hospitals NHS Trust (Alexandra Hospital Redditch)	Yes	Yes	43.8	60	60	50	50	35.7	70.8	76.6	55.9	Lower quartile	Lower quartile
Worcestershire Acute Hospitals NHS Trust (Worcester Royal Hospital)	Yes	Yes	50	80	50	42.5	75	58.9	83.3	37.5	59.7	Lower quartile	Lower quartile
Wye Valley NHS Trust	Yes	Yes	68.8	60	70	42.5	75	69.6	70.8	76.6	66.7	Middle half	Middle half
North of England - *North East*													
City Hospitals Sunderland NHS Foundation Trust	Yes	Yes	93.8	100	80	47.5	75	96.4	95.8	93.8	85.3	Middle half	Upper quartile
County Durham and Darlington NHS Foundation Trust	Yes	Yes	100	60	70	42.5	100	96.4	87.5	67.2	78	NA	Middle half
Gateshead Health NHS Foundation Trust	Yes	Yes	93.8	80	90	60	75	67.9	91.7	93.8	81.5	Middle half	Upper quartile
Newcastle upon Tyne Hospitals NHS Foundation Trust	Yes	Yes	100	100	100	57.5	100	92.9	95.8	100	93.3	Upper quartile	Upper quartile
North Tees and Hartlepool NHS Foundation Trust	Yes	Yes	62.5	80	80	70	100	96.4	79.2	93.8	82.7	NA	Upper quartile
Northumbria Healthcare NHS Foundation Trust (Hexham Hospital)	Yes	Yes	56.3	40	70	40	100	71.4	91.7	100	71.2	Upper quartile	Middle half
Northumbria Healthcare NHS Foundation Trust (North Tyneside General Hospital)	Yes	Yes	68.8	100	70	47.5	100	96.4	91.7	100	84.3	Upper quartile	Upper quartile
Northumbria Healthcare NHS Foundation Trust (Wansbeck General Hospital)	Yes	Yes	75	80	70	52.5	100	96.4	83.3	100	82.2	Upper quartile	Upper quartile
South Tees Hospitals NHS Foundation Trust	Yes	Yes	93.8	40	90	77.5	100	67.9	91.7	87.5	81	NA	Upper quartile
South Tyneside NHS Foundation Trust	Yes	Yes	68.8	100	70	65	87.5	85.7	83.3	64.1	78	Upper quartile	Middle half

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	Number of stroke beds onsite			Number of acute criteria achieved		Stroke unit features	Thrombolysis provision	Staffing levels							
Site Name 2012	Type 1 beds	Type 2 beds	Type 3 beds	Type 1 beds	Type 3 beds	Number of 5 SUTC criteria achieved	Availability and 24/7 provision offered onsite or in collaboration	Qualified Nurses - WTEs per 10 SU beds	Physiotherapy - WTEs per 10 beds	Occupational Therapy - WTEs per 10 beds	Speech and Language Therapy - WTEs per 10 beds	6 or 7 day working for at least 2 of PT, OT and SALT	Number of programmed activities for stroke consultant physicians	Junior doctor time per week for all SU beds	Access to clinical psychologist(s)
NATIONAL	0	0	16	6	6	4	90%	8.00	1.31	1.09	0.47	23%	20	26	52%
North of England - *North West*															
Aintree University Hospitals NHS Foundation Trust	6	17	6	6	5	4	24/7 on-site	Below median	Above median	Above median	Below median	Yes	Below median	Above median	Yes
Blackpool Teaching Hospitals NHS Foundation Trust	0	0	31	NA	5	4	24/7 on-site	Below median	Below median	Below median	Below median	No	Above median	Below median	No
Bolton NHS Foundation Trust	0	0	34	NA	5	5	None on-site, 24/7 through local arrangements	Below median	Below median	Above median	Above median	Yes	Below median	Above median	Yes
Central Manchester University Hospitals NHS Foundation Trust (Manchester Royal Infirmary)	0	0	26	NA	4	2	None on-site, 24/7 through local arrangements	Above median	Above median	Above median	Above median	No	Below median	Above median	Yes
Central Manchester University Hospitals NHS Foundation Trust (Trafford General Hospital)	0	0	18	NA	5	4	No provison	Below median	Above median	Above median	Above median	No	Below median	Below median	No
Countess of Chester Hospital NHS Foundation Trust	12	9	0	5	NA	4	24/7 on-site	Above median	Above median	Above median	Above median	No	Below median	Above median	Yes
East Cheshire NHS Trust	0	0	24	NA	6	3	<24/7 on-site, 24/7 through local arrangements	Below median	Below median	Above median	Above median	No	Below median	Above median	No
East Lancashire Hospitals NHS Trust	0	0	22	NA	7	4	24/7 on-site	Above median	Below median	Below median	Below median	No	Above median	Below median	No
Lancashire Teaching Hospitals NHS Foundation Trust	0	0	17	NA	6	5	24/7 on-site	Above median	Above median	Above median	Below median	No	Below median	Below median	No
Mid Cheshire Hospitals NHS Foundation Trust	8	20	0	6	NA	3	No provison	Below median	Above median	Below median	Above median	No	Below median	Below median	No
North Cumbria University Hospitals NHS Trust (Cumberland Infirmary)	15	12	0	4	NA	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Above median	Above median	Yes
North Cumbria University Hospitals NHS Trust (West Cumberland Hospital)	4	15	0	6	NA	4	24/7 on-site	Below median	Above median	Above median	Below median	No	Below median	Below median	Yes
Pennine Acute Hospitals NHS Trust (Fairfield General Hospital and Rochdale Infirmary)	0	0	38	NA	5	5	<24/7 on-site, 24/7 through local arrangements	Below median	Below median	Below median	Above median	No	Above median	Above median	Yes
Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)	0	0	29	NA	5	5	None on-site, 24/7 through local arrangements	Above median	Below median	Above median	Above median	No	Below median	Below median	Yes
Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)	0	0	27	NA	5	5	None on-site, 24/7 through local arrangements	Below median	Below median	Above median	Below median	No	Above median	Below median	Yes
Royal Liverpool and Broadgreen University Hospitals NHS Trust	11	38	0	6	NA	5	24/7 on-site	Above median	Above median	Above median	Above median	Yes	Above median	Above median	Yes
Salford Royal NHS Foundation Trust	18	16	0	6	NA	4	24/7 on-site	Above median	Below median	Above median	Below median	No	Above median	Above median	Yes
Southport and Ormskirk Hospital NHS Trust	0	0	20	NA	5	4	24/7 on-site	Below median	Above median	Above median	Above median	No	Below median	Below median	Yes
St Helens & Knowsley Teaching Hospitals NHS Trust	0	0	29	NA	6	4	24/7 on-site	Below median	Equals median	Below median	Above median	Yes	Above median	Below median	Yes
Stockport NHS Foundation Trust	14	16	5	5	6	4	<24/7 on-site, 24/7 through local arrangements	Above median	Above median	Below median	Below median	No	Below median	Above median	Yes
Tameside Hospital NHS Foundation Trust in collaboration with NHS Tameside and Glossop	8	16	0	5	NA	5	None on-site, 24/7 through local arrangements	Above median	Above median	Above median	Above median	No	Below median	Above median	No
University Hospital of South Manchester NHS Foundation Trust	0	0	22	NA	5	5	None on-site, 24/7 through local arrangements	Above median	Above median	Above median	Below median	No	Below median	Below median	No

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	Early supported discharge			Community rehabilitation		TIA/Neurovascular service			Quality improvement		Research	Patient involvement		
Site Name 2012	Stroke specialist ESD team	Specialist ESD team with 4 or more members including PT, OT and SALT	Access to PT, OT or SALT in specialist ESD team less than 48 hours	Stroke specialist community rehab team	Specialist CRT with 4 or more members including PT, OT and SALT	Number of days to wait for appointment in TIA clinic	TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	TIA patients seen, investigated and treated **within a week** for LOW RISK patients	Report on stroke services produced for trust board in past year	Number of members of strategic group responsible for stroke	Number of clinical research studies	Frequency of formal survey of patient/carers views	Report produced in past 12 months which analysed views of patients	Formal links with patient/carers organisations on service provision, audit, AND service reviews and future plans
NATIONAL	66%	89%	90%	57%	81%	2	63%	95%	93%	5	4	47%	68%	53%
North of England - *North West*														
Aintree University Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	3	Yes	Yes	Yes	6	9	1-2 times a year	Yes	No
Blackpool Teaching Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	3	No	Yes	Yes	1	5	Less than once a year	No	No
Bolton NHS Foundation Trust	Yes	Yes	Yes	Yes	No	3	No	Yes	Yes	5	3	Less than once a year	Yes	Yes
Central Manchester University Hospitals NHS Foundation Trust (Manchester Royal Infirmary)	Yes	Yes	Yes	Yes	Yes	28	No	Yes	Yes	1	4	More than 4 a year	Yes	No
Central Manchester University Hospitals NHS Foundation Trust (Trafford General Hospital)	No	No Team	No Team	Yes	Yes	2	No	Yes	Yes	4	2	Less than once a year	No	No
Countess of Chester Hospital NHS Foundation Trust	No	No Team	No Team	Yes	No	3	No	Yes	Yes	4	6	Never	No	No
East Cheshire NHS Trust	No	No Team	No Team	No	No Team	14	No	No	Yes	7	3	Continuous	Yes	No
East Lancashire Hospitals NHS Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	4	4	Never	No	No
Lancashire Teaching Hospitals NHS Foundation Trust	Yes	Yes	No	Yes	Yes	0	Yes	Yes	Yes	6	13	1-2 times a year	Yes	Yes
Mid Cheshire Hospitals NHS Foundation Trust	No	No Team	No Team	No	No Team	5	No	Yes	Yes	5	3	Less than once a year	No	No
North Cumbria University Hospitals NHS Trust (Cumberland Infirmary)	No	No Team	No Team	No	No Team	1	No	Yes	No	4	3	Less than once a year	No	Yes
North Cumbria University Hospitals NHS Trust (West Cumberland Hospital)	No	No Team	No Team	No	No Team	0	Yes	Yes	Yes	4	9	1-2 times a year	Yes	No
Pennine Acute Hospitals NHS Trust (Fairfield General Hospital and Rochdale Infirmary)	Yes	Yes	Yes	Yes	Yes	0	Yes	Yes	Yes	5	8	1-2 times a year	Yes	Yes
Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)	No	No Team	No Team	Yes	Yes	0	No	Yes	Yes	6	2	1-2 times a year	Yes	Yes
Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)	No	No Team	No Team	Yes	Yes	0	No	Yes	Yes	5	5	1-2 times a year	Yes	Yes
Royal Liverpool and Broadgreen University Hospitals NHS Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	7	7	Continuous	Yes	Yes
Salford Royal NHS Foundation Trust	Yes	No	No	Yes	No	3	Yes	Yes	Yes	6	17	Continuous	No	Yes
Southport and Ormskirk Hospital NHS Trust	No	No Team	No Team	Yes	Yes	7	No	Yes	Yes	4	2	Never	No	No
St Helens & Knowsley Teaching Hospitals NHS Trust	Yes	Yes	Yes	Yes	Yes	1	No	Yes	Yes	NA	7	Continuous	No	Yes
Stockport NHS Foundation Trust	No	No Team	No Team	Yes	Yes	1	No	Yes	Yes	5	14	Continuous	Yes	No
Tameside Hospital NHS Foundation Trust in collaboration with NHS Tameside and Glossop	Yes	Yes	Yes	Yes	Yes	1	No	Yes	Yes	5	2	1-2 times a year	Yes	Yes
University Hospital of South Manchester NHS Foundation Trust	No	No Team	No Team	Yes	No	1	No	Yes	Yes	3	4	1-2 times a year	No	Yes

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	Leadership	SINAP	Acute organisational audit domain scores 2012										
Site Name 2012	Stroke clinician recognised as having principle responsibility for stroke	Participating in SINAP (England only)	Domain 1 Acute Care Organisation	Domain 2 Organisation of care	Domain 3 Specialist Roles	Domain 4 Inter Disciplinary Services	Domain 5 TIA/ Neurovascular service	Domain 6 QI, Training and Research	Domain 7 Team Meetings	Domain 8 Communication with Patients and Carers	Total organisational score 2012	Overall position **2010**	Overall position **2012**
NATIONAL	100%	56%	68.8	65.0	70.0	52.5	87.5	80.4	87.5	81.3	73.3		
North of England - *North West*													
Aintree University Hospitals NHS Foundation Trust	Yes	Yes	75	80	90	70	87.5	96.4	83.3	73.4	82	Upper quartile	Upper quartile
Blackpool Teaching Hospitals NHS Foundation Trust	Yes	Yes	68.8	80	40	25	75	78.6	75	39.1	60.2	Lower quartile	Lower quartile
Bolton NHS Foundation Trust	Yes	Yes	66.7	85	80	82.5	75	80.4	100	87.5	82.1	Upper quartile	Upper quartile
Central Manchester University Hospitals NHS Foundation Trust (Manchester Royal Infirmary)	Yes	Yes	33.3	80	85	40	62.5	53.6	87.5	39.1	60.1	Middle half	Lower quartile
Central Manchester University Hospitals NHS Foundation Trust (Trafford General Hospital)	Yes	Yes	33.3	60	50	40	75	64.3	87.5	21.9	54	Middle half	Lower quartile
Countess of Chester Hospital NHS Foundation Trust	Yes	No	75	25	67.5	75	75	64.3	75	51.6	63.5	Middle half	Lower quartile
East Cheshire NHS Trust	Yes	Yes	66.7	20	50	62.5	25	62.5	95.8	75	57.2	Middle half	Lower quartile
East Lancashire Hospitals NHS Trust	Yes	Yes	87.5	100	70	30	100	89.3	91.7	28.1	74.6	Middle half	Middle half
Lancashire Teaching Hospitals NHS Foundation Trust	Yes	Yes	75	80	60	52.5	87.5	96.4	79.2	81.3	76.5	NA	Middle half
Mid Cheshire Hospitals NHS Foundation Trust	Yes	Yes	33.3	20	60	52.5	75	55.4	70.8	37.5	50.6	Middle half	Lower quartile
North Cumbria University Hospitals NHS Trust (Cumberland Infirmary)	Yes	Yes	37.5	40	55	45	75	51.8	91.7	62.5	57.3	Middle half	Lower quartile
North Cumbria University Hospitals NHS Trust (West Cumberland Hospital)	Yes	Yes	56.3	40	60	65	87.5	64.3	75	68.8	64.6	Upper quartile	Lower quartile
Pennine Acute Hospitals NHS Trust (Fairfield General Hospital and Rochdale Infirmary)	Yes	Yes	66.7	100	70	45	87.5	92.9	95.8	68.8	78.3	Upper quartile	Middle half
Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)	Yes	Yes	66.7	40	77.5	52.5	75	83.9	75	68.8	67.4	Middle half	Middle half
Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)	Yes	Yes	66.7	60	80	42.5	75	92.9	91.7	68.8	72.2	Middle half	Middle half
Royal Liverpool and Broadgreen University Hospitals NHS Trust	Yes	Yes	68.8	80	87.5	87.5	100	100	95.8	100	89.9	Upper quartile	Upper quartile
Salford Royal NHS Foundation Trust	Yes	Yes	75	30	90	47.5	100	71.4	87.5	62.5	70.5	Upper quartile	Middle half
Southport and Ormskirk Hospital NHS Trust	Yes	Yes	68.8	60	85	60	75	76.8	91.7	18.8	67	Middle half	Middle half
St Helens & Knowsley Teaching Hospitals NHS Trust	Yes	Yes	68.8	100	80	80	75	50	91.7	87.5	79.1	Middle half	Middle half
Stockport NHS Foundation Trust	Yes	Yes	66.7	30	90	40	75	92.9	100	81.3	72	Middle half	Middle half
Tameside Hospital NHS Foundation Trust in collaboration with NHS Tameside and Glossop	Yes	Yes	66.7	100	70	50	75	80.4	95.8	93.8	79	Lower quartile	Middle half
University Hospital of South Manchester NHS Foundation Trust	Yes	Yes	66.7	45	60	42.5	75	85.7	41.7	79.7	62	Middle half	Lower quartile

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	Number of stroke beds onsite			Number of acute criteria achieved		Stroke unit features	Thrombolysis provision	Staffing levels							
Site Name 2012	Type 1 beds	Type 2 beds	Type 3 beds	Type 1 beds	Type 3 beds	Number of 5 SUTC criteria achieved	Availability and 24/7 provision offered onsite or in collaboration	Qualified Nurses - WTEs per 10 SU beds	Physiotherapy - WTEs per 10 beds	Occupational Therapy - WTEs per 10 beds	Speech and Language Therapy - WTEs per 10 beds	6 or 7 day working for at least 2 of PT, OT and SALT	Number of programmed activities for stroke consultant physicians	Junior doctor time per week for all SU beds	Access to clinical psychologist(s)
NATIONAL	0	0	16	6	6	4	90%	8.00	1.31	1.09	0.47	23%	20	26	52%
University Hospitals of Morecambe Bay NHS Foundation Trust (Furness General Hospital)	0	0	15	NA	5	4	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	No
University Hospitals of Morecambe Bay NHS Foundation Trust (Royal Lancaster Infirmary & Westmorland General Hospital)	2	24	0	5	NA	3	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	No
Warrington and Halton Hospitals NHS Foundation Trust	0	4	24	NA	6	5	<24/7 on-site, 24/7 through local arrangements	Below median	Above median	Above median	Below median	No	Above median	Below median	No
Wirral University Teaching Hospital NHS Foundation Trust	10	20	16	5	5	4	24/7 on-site	Below median	Above median	Equals median	Above median	Yes	Above median	Below median	Yes
Wrightington, Wigan and Leigh NHS Foundation Trust	0	0	25	NA	6	5	None on-site, 24/7 through local arrangements	Below median	Above median	Above median	Below median	Yes	Above median	Above median	No
North of England - *Yorkshire and the Humber*															
Airedale NHS Foundation Trust	1	0	27	6	6	5	<24/7 on-site, no local arrangements	Below median	Below median	Below median	Below median	No	Below median	Below median	Yes
Barnsley Hospital NHS Foundation Trust	0	0	19	NA	6	5	24/7 on-site	Below median	Above median	Above median	Below median	Yes	Equals median	Above median	No
Bradford Teaching Hospitals NHS Foundation Trust	3	12	0	6	NA	4	<24/7 on-site, no local arrangements	Above median	Above median	Above median	Below median	No	Above median	Below median	No
Calderdale and Huddersfield NHS Foundation Trust	4	40	11	6	5	3	<24/7 on-site, no local arrangements	Above median	Below median	Above median	Below median	Yes	Above median	Above median	No
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	0	10	23	NA	5	4	24/7 on-site	Above median	Below median	Below median	Below median	Yes	Above median	Above median	No
Harrogate and District NHS Foundation Trust	4	15	0	6	NA	5	<24/7 on-site, no local arrangements	Above median	Below median	Above median	Below median	No	Below median	Below median	No
Hull and East Yorkshire Hospitals NHS Trust	0	0	52	NA	7	5	24/7 on-site	Below median	Above median	Below median	Below median	No	Above median	Below median	No
Leeds Teaching Hospitals NHS Trust	8	0	33	7	4	3	<24/7 on-site, no local arrangements	Above median	Above median	Below median	Above median	Yes	Above median	Above median	Yes
Mid Yorkshire Hospitals NHS Trust	6	55	0	6	NA	5	24/7 on-site	Above median	Above median	Above median	Below median	No	Above median	Above median	Yes
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Diana Princess of Wales Hospital)	0	0	22	NA	5	3	<24/7 on-site, no local arrangements	Above median	Above median	Above median	Above median	No	Equals median	Above median	No
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)	0	0	15	NA	5	4	<24/7 on-site, no local arrangements	Above median	Above median	Above median	Above median	No	Below median	Below median	No
Rotherham NHS Foundation Trust	8	19	0	5	NA	5	24/7 on-site	Above median	Below median	Above median	Below median	No	Above median	Below median	Yes
Scarborough and North East Yorkshire Healthcare NHS Trust	0	12	16	NA	4	4	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Above median	Yes
Sheffield Teaching Hospitals NHS Foundation Trust	6	56	0	7	NA	5	24/7 on-site	Below median	Below median	Below median	Below median	Yes	Above median	Above median	Yes
York Hospitals NHS Foundation Trust	4	19	15	7	7	5	24/7 on-site	Above median	Below median	Above median	Above median	Yes	Above median	Below median	Yes

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	Early supported discharge			Community rehabilitation		TIA/Neurovascular service			Quality improvement		Research	Patient involvement		
Site Name 2012	Stroke specialist ESD team	Specialist ESD team with 4 or more members including PT, OT and SALT	Access to PT, OT or SALT in specialist ESD team less than 48 hours	Stroke specialist community rehab team	Specialist CRT with 4 or more members including PT, OT and SALT	Number of days to wait for appointment in TIA clinic	TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	TIA patients seen, investigated and treated **within a week** for LOW RISK patients	Report on stroke services produced for trust board in past year	Number of members of strategic group responsible for stroke	Number of clinical research studies	Frequency of formal survey of patient/carers views	Report produced in past 12 months which analysed views of patients	Formal links with patient/carers organisations on service provision, audit, AND service reviews and future plans
NATIONAL	66%	89%	90%	57%	81%	2	63%	95%	93%	5	4	47%	68%	53%
University Hospitals of Morecambe Bay NHS Foundation Trust (Furness General Hospital)	No	No Team	No Team	No	No Team	1	No	Yes	Yes	3	1	Less than once a year	No	No
University Hospitals of Morecambe Bay NHS Foundation Trust (Royal Lancaster Infirmary & Westmorland General Hospital)	No	No Team	No Team	No	No Team	0	No	Yes	No	6	4	Less than once a year	No	No
Warrington and Halton Hospitals NHS Foundation Trust	Yes	No	Yes	Yes	Yes	2	Yes	Yes	Yes	4	4	1-2 times a year	Yes	Yes
Wirral University Teaching Hospital NHS Foundation Trust	Yes	Yes	Yes	No	No Team	5	No	Yes	Yes	7	2	Less than once a year	No	No
Wrightington, Wigan and Leigh NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	3	No	Yes	Yes	6	5	More than 4 a year	Yes	Yes
North of England - *Yorkshire and the Humber*														
Airedale NHS Foundation Trust	Yes	Yes	Yes	Yes	No	1	Yes	Yes	Yes	6	8	Continuous	Yes	Yes
Barnsley Hospital NHS Foundation Trust	No	No Team	No Team	Yes	Yes	1	No	No	Yes	6	4	Never	No	Yes
Bradford Teaching Hospitals NHS Foundation Trust	No	No Team	No Team	Yes	No	3	Yes	Yes	Yes	4	7	Less than once a year	No	Yes
Calderdale and Huddersfield NHS Foundation Trust	Yes	Yes	Yes	No	No Team	2	Yes	Yes	Yes	NA	8	3-4 times a year	Yes	No
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	Yes	Yes	No	Yes	Yes	3	Yes	Yes	Yes	3	7	Less than once a year	No	No
Harrogate and District NHS Foundation Trust	No	No Team	No Team	No	No Team	3	No	Yes	Yes	7	5	Continuous	Yes	Yes
Hull and East Yorkshire Hospitals NHS Trust	No	No Team	No Team	Yes	Yes	4	Yes	Yes	Yes	6	3	1-2 times a year	No	Yes
Leeds Teaching Hospitals NHS Trust	Yes	Yes	Yes	Yes	Yes	10	Yes	Yes	Yes	NA	16	3-4 times a year	Yes	No
Mid Yorkshire Hospitals NHS Trust	Yes	Yes	Yes	No	No Team	1	Yes	Yes	Yes	4	11	Less than once a year	Yes	Yes
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Diana Princess of Wales Hospital)	Yes	Yes	Yes	Yes	Yes	3	Yes	Yes	Yes	4	2	Never	No	No
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	6	2	Never	No	No
Rotherham NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	4	Yes	Yes	Yes	5	4	Less than once a year	Yes	Yes
Scarborough and North East Yorkshire Healthcare NHS Trust	No	No Team	No Team	No	No Team	1	No	Yes	Yes	7	4	Less than once a year	No	Yes
Sheffield Teaching Hospitals NHS Foundation Trust	No	No Team	No Team	No	No Team	2	Yes	Yes	Yes	6	26	3-4 times a year	Yes	Yes
York Hospitals NHS Foundation Trust	No	No Team	No Team	Yes	No	2	No	Yes	Yes	6	8	Less than once a year	No	Yes

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	Leadership	**SINAP**	**Acute organisational audit domain scores 2012**										
Site Name 2012	Stroke clinician recognised as having principle responsibility for stroke	Participating in SINAP (England only)	Domain 1 Acute Care Organisation	Domain 2 Organisation of care	Domain 3 Specialist Roles	Domain 4 Inter Disciplinary Services	Domain 5 TIA/ Neurovascular service	Domain 6 QI, Training and Research	Domain 7 Team Meetings	Domain 8 Communication with Patients and Carers	Total organisational score 2012	Overall position **2010**	Overall position **2012**
NATIONAL	100%	56%	68.8	65.0	70.0	52.5	87.5	80.4	87.5	81.3	73.3		
University Hospitals of Morecambe Bay NHS Foundation Trust (Furness General Hospital)	Yes	Yes	62.5	40	60	47.5	75	60.7	75	56.3	59.6	Lower quartile	Lower quartile
University Hospitals of Morecambe Bay NHS Foundation Trust (Royal Lancaster Infirmary & Westmorland General Hospital)	Yes	Yes	62.5	40	70	35	75	46.4	54.2	37.5	52.6	Lower quartile	Lower quartile
Warrington and Halton Hospitals NHS Foundation Trust	Yes	Yes	66.7	85	60	42.5	87.5	89.3	91.7	81.3	75.5	Upper quartile	Middle half
Wirral University Teaching Hospital NHS Foundation Trust	Yes	Yes	68.8	60	85	75	75	87.5	70.8	29.7	69	Middle half	Middle half
Wrightington, Wigan and Leigh NHS Foundation Trust	Yes	Yes	66.7	100	70	67.5	75	96.4	95.8	89.1	82.6	Middle half	Upper quartile
North of England - *Yorkshire and the Humber*													
Airedale NHS Foundation Trust	Yes	Yes	41.7	85	90	30	100	96.4	91.7	76.6	76.4	Middle half	Middle half
Barnsley Hospital NHS Foundation Trust	Yes	Yes	56.3	40	70	70	50	96.4	87.5	62.5	66.6	Middle half	Middle half
Bradford Teaching Hospitals NHS Foundation Trust	Yes	Yes	41.7	45	40	55	87.5	64.3	83.3	60.9	59.7	Middle half	Lower quartile
Calderdale and Huddersfield NHS Foundation Trust	Yes	No	41.7	80	50	52.5	100	50	95.8	73.4	67.9	Middle half	Middle half
Doncaster and Bassetlaw Hospitals NHS Foundation Trust	Yes	Yes	62.5	60	40	65	100	85.7	91.7	65.6	71.3	NA	Middle half
Harrogate and District NHS Foundation Trust	Yes	Yes	41.7	20	70	42.5	62.5	100	79.2	100	64.5	Middle half	Lower quartile
Hull and East Yorkshire Hospitals NHS Trust	Yes	Yes	87.5	60	80	47.5	100	83.9	75	62.5	74.6	Lower quartile	Middle half
Leeds Teaching Hospitals NHS Trust	Yes	No	75	70	80	75	87.5	50	91.7	68.8	74.7	Middle half	Middle half
Mid Yorkshire Hospitals NHS Trust	Yes	No	56.3	80	80	60	87.5	89.3	87.5	60.9	75.2	Lower quartile	Middle half
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Diana Princess of Wales Hospital)	Yes	Yes	41.7	80	70	55	87.5	51.8	79.2	65.6	66.3	Middle half	Lower quartile
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)	Yes	Yes	41.7	100	60	57.5	100	83.9	75	62.5	72.6	Upper quartile	Middle half
Rotherham NHS Foundation Trust	Yes	Yes	62.5	100	80	55	87.5	92.9	91.7	87.5	82.1	Middle half	Upper quartile
Scarborough and North East Yorkshire Healthcare NHS Trust	Yes	No	50	40	90	37.5	75	75	95.8	62.5	65.7	Lower quartile	Lower quartile
Sheffield Teaching Hospitals NHS Foundation Trust	Yes	Yes	87.5	10	87.5	70	100	96.4	79.2	87.5	77.3	Middle half	Middle half
York Hospitals NHS Foundation Trust	Yes	Yes	87.5	45	90	62.5	75	96.4	95.8	59.4	76.5	Middle half	Middle half

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	Number of stroke beds onsite			Number of acute criteria achieved		Stroke unit features	Thrombolysis provision	Staffing levels							
Site Name 2012	Type 1 beds	Type 2 beds	Type 3 beds	Type 1 beds	Type 3 beds	Number of 5 SUTC criteria achieved	Availability and 24/7 provision offered onsite or in collaboration	Qualified Nurses - WTEs per 10 SU beds	Physiotherapy - WTEs per 10 beds	Occupational Therapy - WTEs per 10 beds	Speech and Language Therapy - WTEs per 10 beds	6 or 7 day working for at least 2 of PT, OT and SALT	Number of programmed activities for stroke consultant physicians	Junior doctor time per week for all SU beds	Access to clinical psychologist(s)
NATIONAL	0	0	16	6	6	4	90%	8.00	1.31	1.09	0.47	23%	20	26	52%
South of England - *South Central*															
Buckinghamshire Healthcare NHS Trust	8	22	0	7	NA	5	24/7 on-site	Above median	Above median	Above median	Above median	No	Above median	Above median	No
Hampshire Hospitals NHS Foundation Trust	0	22	22	NA	7	4	24/7 on-site	Below median	Below median	Below median	Below median	No	Above median	Above median	Yes
Heatherwood and Wexham Park Hospitals NHS Foundation Trust	3	30	0	6	NA	4	None on-site, 24/7 through local arrangements	Above median	Above median	Above median	Below median	No	Above median	Above median	No
Isle of Wight NHS Trust	0	0	30	NA	5	4	<24/7 on-site, no local arrangements	Below median	Below median	Below median	Below median	No	Below median	Below median	Yes
Milton Keynes Hospital NHS Foundation Trust	20	0	0	3	NA	3	None on-site, 24/7 through local arrangements	Below median	Below median	Below median	Above median	No	Below median	Below median	No
Oxford University Hospitals NHS Trust (Horton General Hospital)	0	0	10	NA	5	4	None on-site, 24/7 through local arrangements	Above median	Below median	Below median	Below median	No	Below median	Above median	No
Oxford University Hospitals NHS Trust (John Radcliffe Hospital)	6	0	13	7	7	5	24/7 on-site	Above median	Above median	Above median	Below median	No	Below median	Above median	Yes
Portsmouth Hospitals NHS Trust jointly with Hampshire and Portsmouth City PCTs	30	30	0	6	NA	5	24/7 on-site	Above median	Above median	Below median	Below median	No	Above median	Above median	Yes
Royal Berkshire NHS Foundation Trust	0	8	28	NA	6	4	24/7 on-site	Below median	Above median	Above median	Below median	No	Above median	Above median	Yes
University Hospital Southampton NHS Foundation Trust	0	20	16	NA	5	4	24/7 on-site	Above median	Above median	Above median	Above median	Yes	Above median	Above median	No
Ashford and St Peter's Hospital NHS Foundation Trust	6	20	0	6	NA	5	24/7 on-site	Below median	Above median	Below median	Above median	No	Above median	Above median	No
Brighton and Sussex University Hospitals NHS Trust (Princess Royal Hospital Haywards Heath)	0	0	10	NA	6	5	24/7 on-site	Below median	Above median	Above median	Below median	No	Below median	Below median	No
Brighton and Sussex University Hospitals NHS Trust (Royal Sussex County Hospital)	0	0	22	NA	6	5	24/7 on-site	Above median	Below median	Below median	Below median	No	Below median	Above median	No
Dartford & Gravesham NHS Trust	0	0	23	NA	5	4	24/7 on-site	Below median	Below median	Below median	Below median	No	Equals median	Below median	Yes
East Kent Hospitals University NHS Foundation Trust (Kent and Canterbury Hospital)	8	17	0	6	NA	4	24/7 on-site	Above median	Below median	Below median	Below median	No	Below median	Below median	Yes
East Kent Hospitals University NHS Foundation Trust (Queen Elizabeth The Queen Mother Hospital)	0	0	19	NA	6	5	24/7 on-site	Above median	Above median	Below median	Above median	No	Below median	Above median	Yes
East Kent Hospitals University NHS Foundation Trust (William Harvey Hospital)	8	0	16	5	5	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Above median	Yes
East Sussex Healthcare NHS Trust (Conquest Hospital)	6	14	0	6	NA	4	24/7 on-site	Above median	Below median	Below median	Above median	No	Below median	Below median	No
East Sussex Healthcare NHS Trust (Eastbourne District General Hospital)	8	15	0	6	NA	4	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Above median	No
Epsom and St Helier University Hospitals NHS Trust (Epsom General Hospital)	0	0	18	NA	6	5	24/7 on-site	Below median	Below median	Above median	Above median	Yes	Equals median	Equals median	Yes
Frimley Park Hospitals NHS Foundation Trust	10	16	0	7	NA	5	24/7 on-site	Above median	Above median	Above median	Above median	No	Above median	Equals median	Yes
Maidstone and Tunbridge Wells NHS Trust (Maidstone Hospital)	0	0	26	NA	5	4	24/7 on-site	Below median	Above median	Above median	Below median	No	Below median	Below median	Yes
Maidstone and Tunbridge Wells NHS Trust (Tunbridge Wells Hospital)	0	0	8	NA	7	4	24/7 on-site	Above median	Above median	Above median	Below median	No	Below median	Below median	Yes
Medway NHS Foundation Trust, Medway PCT and Swale PCT	2	0	23	5	5	4	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	No

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	Early supported discharge			Community rehabilitation		TIA/Neurovascular service			Quality improvement		Research	Patient involvement		
Site Name 2012	Stroke specialist ESD team	Specialist ESD team with 4 or more members including PT, OT and SALT	Access to PT, OT or SALT in specialist ESD team less than 48 hours	Stroke specialist community rehab team	Specialist CRT with 4 or more members including PT, OT and SALT	Number of days to wait for appointment in TIA clinic	TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	TIA patients seen, investigated and treated **within a week** for LOW RISK patients	Report on stroke services produced for trust board in past year	Number of members of strategic group responsible for stroke	Number of clinical research studies	Frequency of formal survey of patient/carers views	Report produced in past 12 months which analysed views of patients	Formal links with patient/carers organisations on service provision, audit, AND service reviews and future plans
NATIONAL	66%	89%	90%	57%	81%	2	63%	95%	93%	5	4	47%	68%	53%
South of England - *South Central*														
Buckinghamshire Healthcare NHS Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	5	5	Continuous	Yes	Yes
Hampshire Hospitals NHS Foundation Trust	No	No Team	No Team	No	No Team	2	Yes	Yes	Yes	4	6	Continuous	Yes	No
Heatherwood and Wexham Park Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	4	Yes	Yes	Yes	1	0	Continuous	Yes	No
Isle of Wight NHS Trust	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	7	3	1-2 times a year	Yes	No
Milton Keynes Hospital NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	4	No	No	Yes	6	3	Continuous	Yes	No
Oxford University Hospitals NHS Trust (Horton General Hospital)	No	No Team	No Team	No	No Team	5	Yes	Yes	Yes	6	0	3-4 times a year	Yes	No
Oxford University Hospitals NHS Trust (John Radcliffe Hospital)	Yes	Yes	Yes	No	No Team	2	Yes	Yes	Yes	NA	8	3-4 times a year	Yes	Yes
Portsmouth Hospitals NHS Trust jointly with Hampshire and Portsmouth City PCTs	Yes	Yes	Yes	No	No Team	0	No	Yes	Yes	5	4	Continuous	Yes	Yes
Royal Berkshire NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	3	Yes	Yes	Yes	6	4	Continuous	Yes	No
University Hospital Southampton NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	3	Yes	Yes	Yes	2	11	Continuous	Yes	Yes
Ashford and St Peter's Hospital NHS Foundation Trust	Yes	Yes	Yes	Yes	Yes	10	Yes	Yes	Yes	6	8	1-2 times a year	Yes	Yes
Brighton and Sussex University Hospitals NHS Trust (Princess Royal Hospital Haywards Heath)	Yes	Yes	Yes	Yes	Yes	1	No	Yes	Yes	NA	9	Continuous	No	Yes
Brighton and Sussex University Hospitals NHS Trust (Royal Sussex County Hospital)	Yes	Yes	Yes	Yes	Yes	1	No	Yes	Yes	NA	9	Continuous	Yes	Yes
Dartford & Gravesham NHS Trust	Yes	No	Yes	Yes	Yes	3	No	Yes	Yes	4	5	Less than once a year	No	No
East Kent Hospitals University NHS Foundation Trust (Kent and Canterbury Hospital)	No	No Team	No Team	No	No Team	2	Yes	Yes	Yes	6	8	More than 4 a year	Yes	No
East Kent Hospitals University NHS Foundation Trust (Queen Elizabeth The Queen Mother Hospital)	No	No Team	No Team	No	No Team	2	Yes	Yes	Yes	7	10	Less than once a year	No	Yes
East Kent Hospitals University NHS Foundation Trust (William Harvey Hospital)	No	No Team	No Team	No	No Team	5	Yes	Yes	Yes	6	11	Continuous	No	Yes
East Sussex Healthcare NHS Trust (Conquest Hospital)	Yes	Yes	Yes	Yes	Yes	1	No	Yes	Yes	6	0	1-2 times a year	No	No
East Sussex Healthcare NHS Trust (Eastbourne District General Hospital)	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	6	6	Less than once a year	No	No
Epsom and St Helier University Hospitals NHS Trust (Epsom General Hospital)	Yes	Yes	Yes	Yes	Yes	2	No	Yes	Yes	6	0	Continuous	Yes	Yes
Frimley Park Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	2	Yes	Yes	Yes	7	3	Continuous	Yes	Yes
Maidstone and Tunbridge Wells NHS Trust (Maidstone Hospital)	Yes	Yes	Yes	Yes	Yes	2	No	Yes	Yes	NA	1	Continuous	Yes	No
Maidstone and Tunbridge Wells NHS Trust (Tunbridge Wells Hospital)	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	NA	2	Continuous	Yes	No
Medway NHS Foundation Trust, Medway PCT and Swale PCT	Yes	Yes	Yes	Yes	Yes	42	Yes	Yes	Yes	4	2	Continuous	Yes	Yes

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	Leadership	SINAP	Acute organisational audit domain scores 2012										
Site Name 2012	Stroke clinician recognised as having principle responsibility for stroke	Participating in SINAP (England only)	Domain 1 Acute Care Organisation	Domain 2 Organisation of care	Domain 3 Specialist Roles	Domain 4 Inter Disciplinary Services	Domain 5 TIA/ Neurovascular service	Domain 6 QI, Training and Research	Domain 7 Team Meetings	Domain 8 Communication with Patients and Carers	Total organisational score 2012	Overall position **2010**	Overall position **2012**
NATIONAL	100%	56%	68.8	65.0	70.0	52.5	87.5	80.4	87.5	81.3	73.3		
South of England - *South Central*													
Buckinghamshire Healthcare NHS Trust	Yes	No	100	80	80	47.5	100	92.9	95.8	100	87	Middle half	Upper quartile
Hampshire Hospitals NHS Foundation Trust	Yes	No	87.5	40	80	37.5	100	89.3	95.8	81.3	76.4	NA	Middle half
Heatherwood and Wexham Park Hospitals NHS Foundation Trust	Yes	Yes	66.7	80	20	35	100	53.6	75	81.3	63.9	Lower quartile	Lower quartile
Isle of Wight NHS Trust	Yes	No	41.7	100	90	45	87.5	75	79.2	87.5	75.7	Lower quartile	Middle half
Milton Keynes Hospital NHS Foundation Trust	Yes	No	33.3	80	30	52.5	62.5	58.9	79.2	71.9	58.5	Middle half	Lower quartile
Oxford University Hospitals NHS Trust (Horton General Hospital)	Yes	Yes	66.7	40	60	45	87.5	58.9	75	87.5	65.1	Middle half	Lower quartile
Oxford University Hospitals NHS Trust (John Radcliffe Hospital)	Yes	Yes	87.5	80	87.5	55	100	62.5	95.8	81.3	81.2	Upper quartile	Upper quartile
Portsmouth Hospitals NHS Trust jointly with Hampshire and Portsmouth City PCTs	Yes	No	68.8	50	90	62.5	75	92.9	83.3	75	74.7	Middle half	Middle half
Royal Berkshire NHS Foundation Trust	Yes	Yes	75	70	75	47.5	100	96.4	91.7	93.8	81.2	Middle half	Upper quartile
University Hospital Southampton NHS Foundation Trust	Yes	No	68.8	70	80	70	100	69.6	95.8	89.1	80.4	Middle half	Upper quartile
Ashford and St Peter's Hospital NHS Foundation Trust	Yes	Yes	68.8	100	60	42.5	100	96.4	79.2	93.8	80.1	Middle half	Middle half
Brighton and Sussex University Hospitals NHS Trust (Princess Royal Hospital Haywards Heath)	Yes	No	62.5	100	50	45	75	75	66.7	71.9	68.3	Upper quartile	Middle half
Brighton and Sussex University Hospitals NHS Trust (Royal Sussex County Hospital)	Yes	No	68.8	100	60	30	75	75	75	84.4	71	Upper quartile	Middle half
Dartford & Gravesham NHS Trust	Yes	Yes	75	90	70	40	75	89.3	83.3	12.5	66.9	Middle half	Middle half
East Kent Hospitals University NHS Foundation Trust (Kent and Canterbury Hospital)	Yes	Yes	75	40	75	42.5	100	83.9	95.8	92.2	75.6	Upper quartile	Middle half
East Kent Hospitals University NHS Foundation Trust (Queen Elizabeth The Queen Mother Hospital)	Yes	Yes	75	40	90	62.5	100	100	91.7	68.8	78.5	Upper quartile	Middle half
East Kent Hospitals University NHS Foundation Trust (William Harvey Hospital)	Yes	Yes	75	40	80	62.5	100	96.4	87.5	87.5	78.6	Upper quartile	Middle half
East Sussex Healthcare NHS Trust (Conquest Hospital)	Yes	Yes	56.3	100	50	47.5	75	71.4	79.2	60.9	67.5	Middle half	Middle half
East Sussex Healthcare NHS Trust (Eastbourne District General Hospital)	Yes	Yes	68.8	100	50	40	62.5	96.4	79.2	56.3	69.1	Lower quartile	Middle half
Epsom and St Helier University Hospitals NHS Trust (Epsom General Hospital)	Yes	Yes	62.5	100	80	80	75	71.4	100	96.9	83.2	Lower quartile	Upper quartile
Frimley Park Hospitals NHS Foundation Trust	Yes	Yes	100	80	80	72.5	100	87.5	95.8	100	89.5	Upper quartile	Upper quartile
Maidstone and Tunbridge Wells NHS Trust (Maidstone Hospital)	Yes	Yes	68.8	100	80	45	87.5	62.5	75	93.8	76.6	Lower quartile	Middle half
Maidstone and Tunbridge Wells NHS Trust (Tunbridge Wells Hospital)	Yes	Yes	87.5	100	90	72.5	87.5	62.5	70.8	85.9	82.1	Upper quartile	Upper quartile
Medway NHS Foundation Trust, Medway PCT and Swale PCT	Yes	Yes	68.8	80	70	52.5	100	51.8	75	100	74.8	Middle half	Middle half

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	Number of stroke beds onsite			Number of acute criteria achieved		Stroke unit features	Thrombolysis provision	Staffing levels							
Site Name 2012	Type 1 beds	Type 2 beds	Type 3 beds	Type 1 beds	Type 3 beds	Number of 5 SUTC criteria achieved	Availability and 24/7 provision offered onsite or in collaboration	Qualified Nurses - WTEs per 10 SU beds	Physiotherapy - WTEs per 10 beds	Occupational Therapy - WTEs per 10 beds	Speech and Language Therapy - WTEs per 10 beds	6 or 7 day working for at least 2 of PT, OT and SALT	Number of programmed activities for stroke consultant physicians	Junior doctor time per week for all SU beds	Access to clinical psychologist(s)
NATIONAL	0	0	16	6	6	4	90%	8.00	1.31	1.09	0.47	23%	20	26	52%
Royal Surrey County Hospital NHS Foundation Trust	0	0	24	NA	6	5	24/7 on-site	Below median	Above median	Below median	Below median	No	Above median	Above median	No
Surrey & Sussex Healthcare NHS Trust	0	4	28	NA	5	3	24/7 on-site	Below median	Below median	Above median	Above median	No	Below median	Above median	Yes
Western Sussex Hospitals NHS Trust (St Richard's Hospital)	0	0	20	NA	5	3	<24/7 on-site, 24/7 through local arrangements	Below median	Below median	Below median	Above median	No	Above median	Below median	No
Western Sussex Hospitals NHS Trust (Worthing & Southlands Hospitals NHS Trust)	0	0	28	NA	6	4	24/7 on-site	Below median	Above median	Above median	Above median	No	Equals median	Below median	No
South of England - *South West*															
Dorset County Hospital NHS Foundation Trust	6	14	0	6	NA	4	24/7 on-site	Above median	Below median	Below median	Above median	Yes	Below median	Above median	Yes
Gloucestershire Hospitals NHS Foundation Trust	0	0	59	NA	6	4	24/7 on-site	Below median	Below median	Above median	Below median	No	Above median	Above median	Yes
Great Western Hospitals NHS Foundation Trust	0	0	18	NA	5	4	24/7 on-site	Above median	Above median	Below median	Above median	No	Above median	Below median	No
North Bristol NHS Trust	0	28	27	NA	5	4	24/7 on-site	Below median	Below median	Below median	Above median	No	Above median	Above median	No
Northern Devon Healthcare NHS Trust in collaboration with North Devon Primary Care Trust	0	0	10	NA	5	4	24/7 on-site	Above median	Above median	Above median	Above median	No	Below median	Below median	No
Plymouth Hospitals NHS Trust in collaboration with Plymouth Community Healthcare	8	29	0	5	NA	5	24/7 on-site	Below median	Above median	Above median	Above median	No	Below median	Below median	Yes
Poole Hospital NHS Foundation Trust	8	20	0	5	NA	4	24/7 on-site	Below median	Above median	Above median	Above median	Yes	Below median	Below median	Yes
Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	4	22	10	5	5	5	24/7 on-site	Above median	Above median	Above median	Above median	Yes	Below median	Above median	No
Royal Cornwall Hospitals NHS Trust	0	0	20	NA	6	3	24/7 on-site	Below median	Above median	Above median	Above median	No	Above median	Below median	No
Royal Devon and Exeter NHS Foundation Trust in collaboration community hospitals under Northern Devon Healthcare NHS Trust	0	0	28	NA	6	4	24/7 on-site	Below median	Below median	Below median	Below median	Yes	Above median	Above median	Yes
Royal United Hospital Bath NHS Trust	4	0	22	7	7	4	24/7 on-site	Above median	Below median	Below median	Below median	No	Equals median	Above median	No
Salisbury NHS Foundation Trust	0	0	30	NA	6	5	24/7 on-site	Below median	Below median	Below median	Below median	Yes	Below median	Above median	Yes
South Devon Healthcare NHS Foundation Trust and Torbay and Southern Devon Health Care Trust	0	0	39	NA	6	4	24/7 on-site	Below median	Below median	Above median	Above median	Yes	Above median	Below median	Yes
Taunton and Somerset NHS Foundation Trust	4	19	0	5	NA	3	24/7 on-site	Below median	Above median	Equals median	Above median	No	Above median	Below median	No
University Hospitals Bristol NHS Foundation Trust	0	15	19	NA	5	4	<24/7 on-site, 24/7 through local arrangements	Below median	Below median	Above median	Below median	No	Above median	Above median	Yes
Weston Area Health NHS Trust	0	0	20	NA	5	4	<24/7 on-site, 24/7 through local arrangements	Below median	Below median	Below median	Below median	No	Below median	Below median	No
Yeovil District Hospital NHS Foundation Trust	2	0	12	6	6	5	24/7 on-site	Above median	Above median	Above median	Below median	No	Below median	Below median	No
Northern Ireland															
Belfast Health and Social Care Trust (Mater Hospital)	0	0	18	NA	5	4	24/7 on-site	Above median	Below median	Above median	Below median	No	Below median	Below median	Yes
Belfast Health and Social Care Trust (Royal Group of Hospitals and Belfast City Hospital)	4	0	45	6	6	5	24/7 on-site	Above median	Above median	Below median	Below median	No	Above median	Above median	Yes
South Eastern Health and Social Care Trust (Downe Hospital)	0	0	6	NA	4	3	None on-site, 24/7 through local arrangements	Equals median	Above median	Above median	Above median	No	Below median	Below median	No
South Eastern Health and Social Care Trust (Lagan Valley Hospital)	0	0	10	NA	4	4	None on-site, 24/7 through local arrangements	Equals median	Above median	Above median	Above median	No	Below median	Below median	No

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	Early supported discharge			Community rehabilitation		TIA/Neurovascular service			Quality improvement		Research	Patient involvement		
Site Name 2012	Stroke specialist ESD team	Specialist ESD team with 4 or more members including PT, OT and SALT	Access to PT, OT or SALT in specialist ESD team less than 48 hours	Stroke specialist community rehab team	Specialist CRT with 4 or more members including PT, OT and SALT	Number of days to wait for appointment in TIA clinic	TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	TIA patients seen, investigated and treated **within a week** for LOW RISK patients	Report on stroke services produced for trust board in past year	Number of members of strategic group responsible for stroke	Number of clinical research studies	Frequency of formal survey of patient/carers views	Report produced in past 12 months which analysed views of patients	Formal links with patient/carers organisations on service provision, audit, AND service reviews and future plans
NATIONAL	66%	89%	90%	57%	81%	2	63%	95%	93%	5	4	47%	68%	53%
Royal Surrey County Hospital NHS Foundation Trust	Yes	Yes	Yes	No	No Team	1	Yes	Yes	Yes	2	12	Continuous	Yes	Yes
Surrey & Sussex Healthcare NHS Trust	Yes	Yes	Yes	Yes	Yes	0	Yes	Yes	Yes	5	4	Never	No	Yes
Western Sussex Hospitals NHS Trust (St Richard's Hospital)	No	No Team	No Team	Yes	No	1	Yes	No	Yes	NA	2	Continuous	No	No
Western Sussex Hospitals NHS Trust (Worthing & Southlands Hospitals NHS Trust)	Yes	Yes	Yes	Yes	Yes	1	Yes	Yes	Yes	NA	2	More than 4 a year	No	No
South of England - *South West*														
Dorset County Hospital NHS Foundation Trust	Yes	Yes	Yes	No	No Team	4	Yes	Yes	Yes	7	2	Continuous	Yes	Yes
Gloucestershire Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	1	No	Yes	Yes	5	7	1-2 times a year	Yes	No
Great Western Hospitals NHS Foundation Trust	Yes	Yes	No	Yes	Yes	5	No	Yes	Yes	3	0	Less than once a year	No	No
North Bristol NHS Trust	Yes	Yes	Yes	No	No Team	1	Yes	Yes	No	4	8	Continuous	Yes	Yes
Northern Devon Healthcare NHS Trust in collaboration with North Devon Primary Care Trust	Yes	Yes	No	No	No Team	14	No	Yes	Yes	3	8	Continuous	Yes	No
Plymouth Hospitals NHS Trust in collaboration with Plymouth Community Healthcare	Yes	Yes	Yes	No	No Team	2	Yes	Yes	Yes	7	11	1-2 times a year	Yes	Yes
Poole Hospital NHS Foundation Trust	No	No Team	No Team	No	No Team	1	No	Yes	Yes	2	9	Continuous	Yes	No
Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	Yes	Yes	Yes	No	No Team	1	No	Yes	Yes	7	14	Continuous	Yes	Yes
Royal Cornwall Hospitals NHS Trust	Yes	Yes	Yes	Yes	No	1	Yes	Yes	Yes	6	12	Continuous	Yes	No
Royal Devon and Exeter NHS Foundation Trust in collaboration community hospitals under Northern Devon Healthcare NHS Trust	Yes	Yes	Yes	No	No Team	1	Yes	Yes	Yes	4	17	More than 4 a year	No	No
Royal United Hospital Bath NHS Trust	Yes	Yes	Yes	Yes	No	2	Yes	Yes	Yes	4	11	More than 4 a year	Yes	No
Salisbury NHS Foundation Trust	Yes	Yes	Yes	Yes	No	1	No	Yes	Yes	5	4	Continuous	Yes	Yes
South Devon Healthcare NHS Foundation Trust and Torbay and Southern Devon Health Care Trust	Yes	Yes	Yes	Yes	Yes	14	Yes	Yes	Yes	6	12	Less than once a year	No	Yes
Taunton and Somerset NHS Foundation Trust	Yes	Yes	Yes	No	No Team	2	Yes	Yes	Yes	3	8	Continuous	Yes	No
University Hospitals Bristol NHS Foundation Trust	Yes	Yes	Yes	No	No Team	1	No	Yes	Yes	5	9	1-2 times a year	No	No
Weston Area Health NHS Trust	Yes	Yes	Yes	Yes	Yes	2	No	Yes	Yes	3	2	Continuous	No	No
Yeovil District Hospital NHS Foundation Trust	Yes	Yes	Yes	No	No Team	23	Yes	Yes	Yes	4	10	3-4 times a year	Yes	Yes
Northern Ireland														
Belfast Health and Social Care Trust (Mater Hospital)	Yes	Yes	Yes	No	No Team	7	Yes	Yes	No	4	6	Never	No	Yes
Belfast Health and Social Care Trust (Royal Group of Hospitals and Belfast City Hospital)	Yes	Yes	Yes	No	No Team	7	Yes	Yes	No	4	6	Less than once a year	No	Yes
South Eastern Health and Social Care Trust (Downe Hospital)	Yes	Yes	Yes	No	No Team	4	Yes	Yes	Yes	5	0	Never	No	No
South Eastern Health and Social Care Trust (Lagan Valley Hospital)	Yes	Yes	No	Yes	Yes	7	No	Yes	Yes	5	0	Never	No	Yes

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	Leadership	SINAP	Acute organisational audit domain scores 2012										
Site Name 2012	Stroke clinician recognised as having principle responsibility for stroke	Participating in SINAP (England only)	Domain 1 Acute Care Organisation	Domain 2 Organisation of care	Domain 3 Specialist Roles	Domain 4 Inter Disciplinary Services	Domain 5 TIA/ Neurovascular service	Domain 6 QI, Training and Research	Domain 7 Team Meetings	Domain 8 Communication with Patients and Carers	Total organisational score 2012	Overall position **2010**	Overall position **2012**
NATIONAL	100%	56%	68.8	65.0	70.0	52.5	87.5	80.4	87.5	81.3	73.3		
Royal Surrey County Hospital NHS Foundation Trust	Yes	Yes	75	80	60	60	100	69.6	95.8	93.8	79.3	Middle half	Middle half
Surrey & Sussex Healthcare NHS Trust	Yes	Yes	62.5	100	80	75	100	67.9	75	51.6	76.5	Upper quartile	Middle half
Western Sussex Hospitals NHS Trust (St Richard's Hospital)	Yes	No	66.7	25	70	40	62.5	37.5	91.7	59.4	56.6	Middle half	Lower quartile
Western Sussex Hospitals NHS Trust (Worthing & Southlands Hospitals NHS Trust)	Yes	No	62.5	100	60	55	87.5	62.5	95.8	65.6	73.6	Middle half	Middle half
South of England - *South West*													
Dorset County Hospital NHS Foundation Trust	Yes	No	62.5	80	90	75	87.5	62.5	83.3	100	80.1	Lower quartile	Middle half
Gloucestershire Hospitals NHS Foundation Trust	Yes	No	68.8	60	57.5	40	75	80.4	100	78.1	70	NA	Middle half
Great Western Hospitals NHS Foundation Trust	Yes	No	75	60	30	37.5	75	48.2	75	25	53.2	Middle half	Lower quartile
North Bristol NHS Trust	Yes	No	75	60	70	40	100	39.3	95.8	96.9	72.1	Upper quartile	Middle half
Northern Devon Healthcare NHS Trust in collaboration with North Devon Primary Care Trust	Yes	Yes	56.3	60	60	67.5	50	60.7	87.5	79.7	65.2	Lower quartile	Lower quartile
Plymouth Hospitals NHS Trust in collaboration with Plymouth Community Healthcare	Yes	Yes	56.3	80	80	52.5	87.5	100	91.7	57.8	75.7	Middle half	Middle half
Poole Hospital NHS Foundation Trust	Yes	No	75	10	80	72.5	75	69.6	91.7	89.1	70.4	Middle half	Middle half
Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	Yes	Yes	75	60	60	77.5	75	100	91.7	98.4	79.7	Upper quartile	Middle half
Royal Cornwall Hospitals NHS Trust	Yes	Yes	62.5	55	60	55	100	71.4	91.7	89.1	73.1	Middle half	Middle half
Royal Devon and Exeter NHS Foundation Trust in collaboration community hospitals under Northern Devon Healthcare NHS Trust	Yes	Yes	68.8	80	85	65	87.5	89.3	91.7	81.3	81.1	Middle half	Upper quartile
Royal United Hospital Bath NHS Trust	Yes	Yes	87.5	85	80	32.5	87.5	89.3	91.7	93.8	80.9	Upper quartile	Upper quartile
Salisbury NHS Foundation Trust	Yes	No	68.8	85	70	50	75	92.9	83.3	87.5	76.6	Middle half	Middle half
South Devon Healthcare NHS Foundation Trust and Torbay and Southern Devon Health Care Trust	Yes	Yes	62.5	80	75	75	62.5	71.4	95.8	67.2	73.7	Upper quartile	Middle half
Taunton and Somerset NHS Foundation Trust	Yes	No	62.5	80	60	57.5	87.5	60.7	95.8	87.5	73.9	Middle half	Middle half
University Hospitals Bristol NHS Foundation Trust	Yes	No	66.7	60	87.5	55	75	92.9	100	71.9	76.1	Middle half	Middle half
Weston Area Health NHS Trust	Yes	No	66.7	80	50	35	75	60.7	91.7	79.7	67.3	Middle half	Middle half
Yeovil District Hospital NHS Foundation Trust	Yes	No	75	80	40	37.5	62.5	76.8	75	93.8	67.6	Middle half	Middle half
Northern Ireland													
Belfast Health and Social Care Trust (Mater Hospital)	Yes	No	56.3	80	80	47.5	87.5	39.3	75	42.2	63.5	Lower quartile	Lower quartile
Belfast Health and Social Care Trust (Royal Group of Hospitals and Belfast City Hospital)	Yes	No	68.8	80	90	42.5	87.5	64.3	75	50	69.8	NA	Middle half
South Eastern Health and Social Care Trust (Downe Hospital)	Yes	No	33.3	80	40	52.5	75	67.9	79.2	34.4	57.8	Lower quartile	Lower quartile
South Eastern Health and Social Care Trust (Lagan Valley Hospital)	Yes	No	33.3	80	30	50	37.5	42.9	79.2	70.3	52.9	Lower quartile	Lower quartile

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	Number of stroke beds onsite			Number of acute criteria achieved		Stroke unit features	Thrombolysis provision	Staffing levels							
Site Name 2012	Type 1 beds	Type 2 beds	Type 3 beds	Type 1 beds	Type 3 beds	Number of 5 SUTC criteria achieved	Availability and 24/7 provision offered onsite or in collaboration	Qualified Nurses - WTEs per 10 SU beds	Physiotherapy - WTEs per 10 beds	Occupational Therapy - WTEs per 10 beds	Speech and Language Therapy - WTEs per 10 beds	6 or 7 day working for at least 2 of PT, OT and SALT	Number of programmed activities for stroke consultant physicians	Junior doctor time per week for all SU beds	Access to clinical psychologist(s)
NATIONAL	0	0	16	6	6	4	90%	8.00	1.31	1.09	0.47	23%	20	26	52%
South Eastern Health and Social Care Trust (Ulster Community and Hospitals)	0	0	20	NA	4	4	24/7 on-site	Above median	Below median	Below median	Below median	No	Equals median	Below median	No
Northern Health and Social Care Trust (Antrim Area Hospital)	0	0	12	NA	5	5	24/7 on-site	Above median	Below median	Above median	Above median	No	Below median	Above median	Yes
Northern Health and Social Care Trust (Causeway)	0	0	14	NA	4	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	Yes
Southern Health and Social Care Trust (Craigavon Area)	0	0	14	NA	4	5	24/7 on-site	Above median	Above median	Below median	Below median	No	Below median	Below median	No
Southern Health and Social Care Trust (Daisy Hill Hospital)	0	0	15	NA	3	5	24/7 on-site	Equals median	Below median	Above median	Below median	No	Below median	Below median	No
Western Health and Social Care Trust (Altnagelvin Hospitals)	0	0	11	NA	7	5	24/7 on-site	Above median	Above median	Below median	Above median	No	Above median	Below median	No
Western Health and Social Care Trust (Southern Sector - Erne)	0	0	19	NA	6	5	24/7 on-site	Above median	Below median	Below median	Below median	No	Above median	Below median	Yes
Wales															
Abertawe Bro Morgannwg University Health Board (Morriston Hospital and Singleton Hospital)	0	26	17	NA	5	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Equals median	Above median	No
Abertawe Bro Morgannwg University Health Board (Princess of Wales Hospital)	0	0	23	NA	5	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Equals median	Above median	No
Aneurin Bevan Health Board (Nevill Hall Hospital)	0	0	22	NA	4	4	<24/7 on-site, 24/7 through local arrangements	Below median	Above median	Below median	Below median	No	Below median	Below median	Yes
Aneurin Bevan Health Board (St Woolos Hospital, Royal Gwent and Caerphilly District Miner's Hospital)	0	0	23	NA	4	4	24/7 on-site	Below median	Above median	Below median	Below median	No	Below median	Above median	Yes
Betsi Cadwaladr University Health Board (Glan Clwyd District General Hospital)	0	0	29	NA	5	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	Yes
Betsi Cadwaladr University Health Board (Wrexham Maelor Hospital)	0	0	21	NA	5	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	Yes
Betsi Cadwaladr University Health Board (Ysbyty Gwynedd)	0	0	13	NA	5	4	24/7 on-site	Above median	Below median	Below median	Below median	No	Below median	Below median	No
Cardiff and Vale University Health Board (University Hospital Wales)	4	14	0	4	NA	4	24/7 on-site	Above median	Below median	Below median	Above median	No	Above median	Above median	Yes
Cwm Taf Health Board (Prince Charles Hospital)	0	0	6	NA	5	5	24/7 on-site	Below median	Above median	Below median	Above median	No	Below median	Below median	No
Cwm Taf Health Board (Royal Glamorgan Hospital)	0	0	12	NA	5	5	24/7 on-site	Below median	Below median	Below median	Above median	No	Below median	Below median	Yes
Hywel Dda Health Board (Bronglais General Hospital)	4	4	0	6	NA	4	24/7 on-site	Below median	Above median	Above median	Above median	No	Below median	Below median	No
Hywel Dda Health Board (Prince Philip Hospital)	5	5	0	4	NA	5	24/7 on-site	Below median	Below median	Below median	Above median	No	Below median	Below median	No
Hywel Dda Health Board (West Wales General Hospital)	5	5	10	4	5	5	24/7 on-site	Below median	Below median	Below median	Below median	No	Below median	Below median	No
Hywel Dda Health Board (Withybush General Hospital)	8	8	0	4	NA	5	24/7 on-site	Above median	Above median	Below median	Above median	No	Below median	Below median	No
Islands															
Isle of Man Department of Health	0	0	9	NA	6	4	No provison	Above median	Below median	Below median	Below median	No	Below median	Below median	No
States of Guernsey Health and Social Services Department	No SU	No SU	No SU	NA	NA	NA	<24/7 on-site, no local arrangements	No SU	No SU	No SU	No SU	No SU	Below median	Below median	No SU

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	Early supported discharge			Community rehabilitation		TIA/Neurovascular service			Quality improvement		Research	Patient involvement		
Site Name 2012	Stroke specialist ESD team	Specialist ESD team with 4 or more members including PT, OT and SALT	Access to PT, OT or SALT in specialist ESD team less than 48 hours	Stroke specialist community rehab team	Specialist CRT with 4 or more members including PT, OT and SALT	Number of days to wait for appointment in TIA clinic	TIA patients seen, investigated and treated **on same or next day (7 days a week)** for HIGH RISK patients	TIA patients seen, investigated and treated **within a week** for LOW RISK patients	Report on stroke services produced for trust board in past year	Number of members of strategic group responsible for stroke	Number of clinical research studies	Frequency of formal survey of patient/carers views	Report produced in past 12 months which analysed views of patients	Formal links with patient/carers organisations on service provision, audit, AND service reviews and future plans
NATIONAL	66%	89%	90%	57%	81%	2	63%	95%	93%	5	4	47%	68%	53%
South Eastern Health and Social Care Trust (Ulster Community and Hospitals)	Yes	Yes	Yes	No	No Team	2	Yes	Yes	Yes	6	6	1-2 times a year	No	No
Northern Health and Social Care Trust (Antrim Area Hospital)	Yes	Yes	Yes	No	No Team	4	Yes	Yes	Yes	7	6	1-2 times a year	Yes	Yes
Northern Health and Social Care Trust (Causeway)	Yes	Yes	Yes	Yes	Yes	3	No	Yes	Yes	7	0	1-2 times a year	Yes	Yes
Southern Health and Social Care Trust (Craigavon Area)	Yes	Yes	Yes	No	No Team	4	Yes	Yes	Yes	5	4	Less than once a year	No	Yes
Southern Health and Social Care Trust (Daisy Hill Hospital)	Yes	Yes	No	No	No Team	4	Yes	Yes	No	4	4	Never	No	Yes
Western Health and Social Care Trust (Altnagelvin Hospitals)	Yes	No	Yes	Yes	No	1	Yes	Yes	Yes	5	2	Never	No	Yes
Western Health and Social Care Trust (Southern Sector - Erne)	Yes	No	Yes	No	No Team	1	Yes	Yes	Yes	5	3	Less than once a year	No	Yes
Wales														
Abertawe Bro Morgannwg University Health Board (Morriston Hospital and Singleton Hospital)	No	No Team	No Team	No	No Team	2	No	Yes	Yes	6	3	Continuous	Yes	Yes
Abertawe Bro Morgannwg University Health Board (Princess of Wales Hospital)	No	No Team	No Team	No	No Team	1	No	Yes	Yes	7	1	Continuous	Yes	Yes
Aneurin Bevan Health Board (Nevill Hall Hospital)	No	No Team	No Team	No	No Team	2	Yes	Yes	Yes	7	2	Continuous	Yes	Yes
Aneurin Bevan Health Board (St Woolos Hospital, Royal Gwent and Caerphilly District Miner's Hospital)	No	No Team	No Team	No	No Team	1	Yes	Yes	Yes	7	1	Continuous	Yes	Yes
Betsi Cadwaladr University Health Board (Glan Clwyd District General Hospital)	No	No Team	No Team	No	No Team	5	No	No	Yes	5	3	Continuous	Yes	Yes
Betsi Cadwaladr University Health Board (Wrexham Maelor Hospital)	Yes	No	Yes	No	No Team	1	No	Yes	Yes	5	2	Continuous	Yes	Yes
Betsi Cadwaladr University Health Board (Ysbyty Gwynedd)	No	No Team	No Team	No	No Team	2	Yes	Yes	Yes	5	1	Continuous	Yes	No
Cardiff and Vale University Health Board (University Hospital Wales)	No	No Team	No Team	No	No Team	7	Yes	Yes	Yes	7	4	Continuous	Yes	Yes
Cwm Taf Health Board (Prince Charles Hospital)	No	No Team	No Team	No	No Team	4	No	Yes	Yes	7	2	Continuous	Yes	Yes
Cwm Taf Health Board (Royal Glamorgan Hospital)	No	No Team	No Team	Yes	Yes	1	No	Yes	Yes	7	2	Continuous	Yes	Yes
Hywel Dda Health Board (Bronglais General Hospital)	No	No Team	No Team	No	No Team	3	Yes	Yes	Yes	5	1	Continuous	Yes	No
Hywel Dda Health Board (Prince Philip Hospital)	No	No Team	No Team	No	No Team	1	Yes	Yes	Yes	6	0	Continuous	Yes	Yes
Hywel Dda Health Board (West Wales General Hospital)	No	No Team	No Team	No	No Team	1	Yes	Yes	Yes	6	0	Continuous	Yes	Yes
Hywel Dda Health Board (Withybush General Hospital)	No	No Team	No Team	No	No Team	7	No	Yes	Yes	6	0	Continuous	Yes	Yes
Islands														
Isle of Man Department of Health	No	No Team	No Team	No	No Team	3	Yes	Yes	No	5	0	Continuous	No	No
States of Guernsey Health and Social Services Department	No	No Team	No Team	No	No Team	28	No	No	Yes	NA	0	Less than once a year	No	No

Sentinel Stroke National Audit Programme (SSNAP)
Acute Organisational Audit Report 2012

	Leadership	SINAP	Acute organisational audit domain scores 2012										
Site Name 2012	Stroke clinician recognised as having principle responsibility for stroke	Participating in SINAP (England only)	Domain 1 Acute Care Organisation	Domain 2 Organisation of care	Domain 3 Specialist Roles	Domain 4 Inter Disciplinary Services	Domain 5 TIA/ Neurovascular service	Domain 6 QI, Training and Research	Domain 7 Team Meetings	Domain 8 Communication with Patients and Carers	Total organisational score 2012	Overall position **2010**	Overall position **2012**
NATIONAL	100%	56%	68.8	65.0	70.0	52.5	87.5	80.4	87.5	81.3	73.3		
South Eastern Health and Social Care Trust (Ulster Community and Hospitals)	Yes	No	43.8	50	50	42.5	87.5	96.4	79.2	46.9	62	Lower quartile	Lower quartile
Northern Health and Social Care Trust (Antrim Area Hospital)	Yes	No	56.3	80	55	62.5	87.5	100	95.8	81.3	77.3	Lower quartile	Middle half
Northern Health and Social Care Trust (Causeway)	Yes	No	37.5	70	75	37.5	75	75	70.8	87.5	66	Lower quartile	Lower quartile
Southern Health and Social Care Trust (Craigavon Area)	Yes	No	43.8	80	50	50	87.5	92.9	87.5	64.1	69.5	Middle half	Middle half
Southern Health and Social Care Trust (Daisy Hill Hospital)	Yes	No	43.8	60	50	42.5	87.5	39.3	87.5	64.1	59.3	Lower quartile	Lower quartile
Western Health and Social Care Trust (Altnagelvin Hospitals)	Yes	No	93.8	70	70	35	100	80.4	75	62.5	73.3	Lower quartile	Middle half
Western Health and Social Care Trust (Southern Sector - Erne)	Yes	No	68.8	65	80	27.5	100	80.4	75	62.5	69.9	Upper quartile	Middle half
Wales													
Abertawe Bro Morgannwg University Health Board (Morriston Hospital and Singleton Hospital)	Yes	No	75	30	50	30	75	83.9	91.7	87.5	65.4	Lower quartile	Lower quartile
Abertawe Bro Morgannwg University Health Board (Princess of Wales Hospital)	Yes	No	68.8	40	60	25	75	87.5	87.5	81.3	65.6	Lower quartile	Lower quartile
Aneurin Bevan Health Board (Nevill Hall Hospital)	Yes	No	33.3	40	77.5	50	87.5	62.5	83.3	100	66.8	Middle half	Middle half
Aneurin Bevan Health Board (St Woolos Hospital, Royal Gwent and Caerphilly District Miner's Hospital)	Yes	No	37.5	40	87.5	45	87.5	62.5	83.3	87.5	66.4	Lower quartile	Lower quartile
Betsi Cadwaladr University Health Board (Glan Clwyd District General Hospital)	Yes	No	62.5	40	80	30	50	80.4	100	100	67.9	Middle half	Middle half
Betsi Cadwaladr University Health Board (Wrexham Maelor Hospital)	Yes	No	56.3	65	57.5	37.5	75	80.4	91.7	100	70.4	Lower quartile	Middle half
Betsi Cadwaladr University Health Board (Ysbyty Gwynedd)	Yes	No	56.3	40	40	37.5	50	67.9	91.7	93.8	59.6	Lower quartile	Lower quartile
Cardiff and Vale University Health Board (University Hospital Wales)	Yes	No	50	10	60	55	87.5	75	79.2	93.8	63.8	Middle half	Lower quartile
Cwm Taf Health Board (Prince Charles Hospital)	Yes	No	62.5	20	70	55	75	75	75	100	66.6	Middle half	Lower quartile
Cwm Taf Health Board (Royal Glamorgan Hospital)	Yes	No	62.5	60	90	55	75	87.5	95.8	100	78.2	Middle half	Middle half
Hywel Dda Health Board (Bronglais General Hospital)	Yes	No	75	40	60	52.5	50	80.4	75	93.8	65.8	Lower quartile	Lower quartile
Hywel Dda Health Board (Prince Philip Hospital)	Yes	No	37.5	5	60	40	100	58.9	91.7	100	61.6	Lower quartile	Lower quartile
Hywel Dda Health Board (West Wales General Hospital)	Yes	No	43.8	40	60	27.5	100	58.9	91.7	100	65.2	Lower quartile	Lower quartile
Hywel Dda Health Board (Withybush General Hospital)	Yes	No	37.5	40	70	55	62.5	71.4	95.8	100	66.5	Lower quartile	Lower quartile
Islands													
Isle of Man Department of Health	Yes	No	33.3	5	60	35	100	42.9	70.8	81.3	53.5	Lower quartile	Lower quartile
States of Guernsey Health and Social Services Department	Yes	No	16.7	0	0	0	25	25	0	25	11.5	Lower quartile	Lower quartile

Appendix 1: Intercollegiate Stroke Working Party – List of Members

Chair

Professor Anthony Rudd Professor of Stroke Medicine, King's College London; Consultant Stroke Physician, Guy's and St Thomas' NHS Foundation Trust

Associate directors from the Stroke Programme at the Royal College of Physicians

Professor Pippa Tyrrell Professor of Stroke Medicine, University of Manchester; Consultant Stroke Physician, Salford Royal NHS Foundation Trust

Dr Geoffrey Cloud Consultant Stroke Physician, Honorary Senior Lecturer Clinical Neuroscience, St George's Healthcare NHS Trust, London

Dr Martin James Honorary Associate Professor, Peninsula College of Medicine and Dentistry; Consultant Stroke Physician, Royal Devon and Exeter Hospital

List of Members

Association of Chartered Physiotherapists in Neurology
Mrs Nicola Hancock Lecturer in Physiotherapy, Restorative Neurology Group, University of East Anglia

AGILE – Professional Network of the Chartered Society of Physiotherapy
Miss Louise Briggs Allied Health Professional Therapy Consultant, St George's Healthcare NHS Trust, London

Association of British Neurologists
Dr Gavin Young Consultant Neurologist, The James Cook University Hospital, South Tees Hospitals NHS Foundation Trust

British Association of Social Workers/National Institute for Health Research School for Social Care Research
Professor Jill Manthorpe Professor of Social Work, King's College London

British Association of Stroke Physicians
Dr Neil Baldwin Consultant Stroke Physician, North Bristol NHS Trust

British Society of Rehabilitation Medicine
Professor Derick Wade Consultant in Rehabilitation Medicine, The Oxford Centre for Enablement

British Dietetic Association
Ms Cheryl Hookway Senior Specialist Dietitian – Stroke, Imperial College Healthcare NHS Trust, London

British Dietetic Association
Dr Elizabeth Weekes Consultant Dietitian And Research Lead, Guy's and St Thomas' NHS Foundation Trust, London

British Geriatrics Society/Stroke Research Network
Professor Helen Rodgers Professor of Stroke Care, Newcastle University

British Primary Care Neurology Society
Dr Helen Hosker Clinical Commissioning Lead For Stroke, NHS Manchester

British Psychological Society
Dr Audrey Bowen Senior Lecturer In Psychology, University of Manchester

British Society of Neuroradiologists
Dr Andrew Clifton Interventional Neuroradiologist, St George's Healthcare NHS Trust, London

Chartered Society of Physiotherapy
Dr Cherry Kilbride Lecturer in Physiotherapy, Centre for Research in Rehabilitation, Brunel University, London

College of Occupational Therapists and Special Section Neurological Practice
Dr Judi Edmans Senior Research Fellow, University ofNottingham

College of Occupational Therapists and Special Section Neurological Practice
Professor Avril Drummond Professor of Healthcare Research, University of Nottingham

Do Once and Share project
Dr Helen Newton Oxford University Hospitals NHS Trust

NHS Stroke Improvement Programme
Dr Damian Jenkinson National Clinical Lead, NHS Stroke Improvement Programme

NHS Stroke Improvement Programme
Mr Ian Golton Director, NHS Stroke Improvement Programme

NHS Stroke Improvement Programme
Ms Sarah Gillham National improvement Lead, NHS Stroke Improvement Programme

Qualitative Research Advice
Dr Chris McKevitt Qualitative Stroke Researcher and Reader In Social Science and Health, King's College London

Royal College of Nursing
Mrs Diana Day Stroke Consultant Nurse, Addenbrooke's Hospital, Cambridge University Hospitals NHS Foundation Trust

Royal College of Nursing
Ms Amanda Jones Stroke Nurse Consultant, Sheffield Teaching Hospitals NHS Foundation Trust

Royal College of Nursing
Dr Christopher Burton Senior Research Fellow in Evidence Based Practice, Bangor University

Royal College of Radiologists
Dr Philip White Consultant Interventional Neuroradiologist, Western General Hospital, Edinburgh

Royal College of Speech & Language Therapists
Ms Rosemary Cunningham Speech and Language Therapy Team Manager, Royal Derby Hospital (Derbyshire Community Health Services)

Royal College of Speech & Language Therapists
Dr Sue Pownall Speech and Language Therapy Team Leader, Sheffield Teaching Hospitals NHS Foundation Trust

Speakability
Mrs Melanie Derbyshire Chief Executive, Speakability (Action for Dysphasic Adults)

Stroke Association
Mr Jon Barrick Chief Executive, Stroke Association

Stroke Association
Mr Joe Korner Director of Communications, Stroke Association

Patient representative
Mr Stephen Simpson

College of Paramedics
Mr Steve Hatton Paramedic – Emergency Care Practitioner, Yorkshire Ambulance Service

The Cochrane Stroke Group
Professor Peter Langhorne Professor of Stroke Care Medicine, University of Glasgow

Welsh Stroke Physicians
Dr Anne Freeman Clinical Lead for Wales, Delivery and Support Unit, NHS Wales

Royal College of Physicians

Appendix 2: Acute organisational audit proforma 2012

This proforma should describe your stroke services as on **2 July 2012**. Please complete all questions. Clarification is available online against each question and also in the Help Booklet provided. In some cases you will either be directed to a later question or a response will not apply based on answers to key questions. Data should be submitted to the Royal College of Physicians via the Web Tool.

Final Deadline: 31 August 2012.

Helpdesk:

Telephone: 020 3075 1383 E-mail: ssnap@rcplondon.ac.uk

SITE CODE: ☐

Basic Organisational Information

A. Audit Questions

A1. Auditor Discipline: (tick all that apply)

Doctor ☐ Manager ☐ Nurse ☐ Therapist ☐ Clinical Audit/Clinical Governance ☐

Other ☐ (please specify) ☐

A2. How many hospitals are covered by this form? [ ]

Please give the full name of each individual hospital. In this question, we are asking about acute hospitals which directly admit acute stroke patients or routinely admit them within 7 days. We will ask about community hospitals/ intermediate care units in Section 11.

	Full name of hospital	Total number of stroke unit beds
1		
2		
3		
4		

B. Caseload

B1. What is the total number of inpatients with stroke across all primary admitting hospitals (i.e. all hospitals in A2) at the time this form is completed? [ ]

B2. How many inpatients with stroke are in stroke unit beds across all primary admitting hospitals at the time this form is completed? [ ]

B3. How many inpatients with stroke are in general assessment / decision beds (e.g. Medical Assessment Unit (MAU), Clinical Decision Unit (CDU), Acute Medical Unit (AMU)) across all primary admitting hospitals at the time this form is completed? [ ]

B4. How many inpatients with stroke are on other wards across all primary admitting hospitals at the time this form is completed? [ ]

How many patients are on each ward? (must add up to the total for **B4**):

(i) Coronary care unit [ ]
(ii) Care of the elderly ward [ ]
(iii) Neurology ward [ ]
(iv) ITU [ ]
(v) HDU [ ]
(vi) Generic rehabilitation unit [ ]
(vii) General medical ward [ ]
(viii) Other(s) [ ] Name(s) of ward(s): _____

B5. What is the total number of inpatients with confirmed or suspected TIA across all primary admitting hospitals at the time this form is completed? [ ]

If B5 is 0 please go to Section 1.

B5(a). How many inpatients with confirmed or suspected TIA are in stroke unit beds across all primary admitting hospitals at the time this form is completed? [ ]

B6. What is the total number of patients admitted with stroke for the financial year 1 April 2011 – 31 March 2012? [ ]

TAB ONE

SECTION 1: ACUTE PRESENTATION

Care in the first 72 hours after stroke

1.1 Which of the following options best describes the service at your site for patients during the first 72 hours after stroke?

(i) We treat all of these patients ○

(ii) We treat some of these patients ○

(iii) We treat none of these patients ○

If 1.1(iii) is chosen:

1.1(a) Please give the RCP site code of the main hospital treating your patients for the first 72 hours. [ ]

(Please call the SSNAP helpdesk if you do not know this code)

NB your acute domain score will be based on this site's acute domain score.

Please go to Section 2 if 1.1(iii) is chosen.

Ambulance

1.2. Are there arrangements in place with local ambulance services to FAST-Track (rapid blue light transfer to hospital) patients presenting with acute stroke who may be appropriate for thrombolysis?

Yes ○ No ○

1.3. Is there an agreed pathway for ambulance clinicians to transport appropriate patients directly to a stroke unit?

Yes ○ No ○

Telemedicine

1.4. Does the stroke service use telemedicine to allow remote access for the management of acute stroke care?

Yes ○ No ○

If yes:

1.4(a) Which of the following do you use: (Tick all that apply)

(i) Remote viewing for brain imaging ☐

(ii) Video enabled clinical assessment ☐

1.4(b) Do you operate a telemedicine rota with other hospitals?

Yes ○ No ○

Thrombolysis in your Hospital(s)

1.5. Do you provide thrombolysis at the following hospital(s)?

Please choose 'No but…' if the hospital no longer provides thrombolysis but did provide it during the past 12 months.

	Full name of hospital	Thrombolysis at this hospital?
1	*On web tool this table will be auto-completed from **A2***	Yes ○ No ○ No but … ○
2		Yes ○ No ○ No but … ○
3		Yes ○ No ○ No but … ○
4		Yes ○ No ○ No but … ○

Please answer 1.6 if you have answered 'Yes' or 'No but …' for Question 1.5 for any hospitals.

Only answer 1.8 – 1.11 if answered 'Yes' to 1.5 (i.e. if you currently provide thrombolysis at any of the hospitals above)

1.6. How many patients were thrombolysed across your site from 1 April 2011 – 31 March 2012?

[ ]

1.7 QUESTION REMOVED

1.8. What level of thrombolysis service does your site offer? (i.e. across all above hospitals)

(a) Weekdays: Number of hours per day [ ] hours

(b) Saturdays: Number of hours per day [ ] hours

(c) Sundays/Bank Holidays: Number of hours per day [ ] hours

1.9. Who initially assesses patients for thrombolysis at your site? (Answer for 'normal hours' and, if applicable, 'out of hours' and select all that apply)

	'Normal Hours' (up to and including 10 consecutive hours on weekdays)	'Out of Hours' (weekend/ bank holidays and more than 10 hrs weekdays)
(i) Consultant physician	☐	☐
(ii) Registrar	☐	☐
(iii) Lower grade doctor	☐	☐
(iv) Stroke nurse or therapist band 8	☐	☐
(v) Stroke nurse or therapist band 7	☐	☐
(vi) Stroke nurse or therapist band 6	☐	☐
(vii) Stroke nurse or therapist band 5	☐	☐

1.10. Who makes the final decision that a patient should be given thrombolysis at your site? (Answer for 'normal hours' and, if applicable, 'out of hours' and select all that apply)

	'Normal Hours' (up to and including 10 consecutive hours on weekdays)	'Out of Hours' (weekend/ bank holidays and more than 10 hrs weekdays)
(i) Consultant physician in person	☐	☐
(ii) Consultant physician via telemedicine	☐	☐
(iii) Consultant physician via telephone	☐	☐
(iv) Registrar	☐	☐
(v) Lower grade doctor	☐	☐
(vi) Stroke nurse band 8	☐	☐
(vii) Stroke nurse band 7	☐	☐
(viii) Stroke nurse band 6	☐	☐
(ix) Stroke nurse band 5	☐	☐

1.11. How many consultant level doctors from your trust are there on an on call thrombolysis rota? [ ]

For each of these consultants, please state their specialty

1.11(a) Which specialty is this consultant?	**Consultant:**									
	1:	**2:**	**3:**	**4:**	**5:**	**6:**	**7:**	**8:**	**9:**	**10:**
(i) Stroke physician	○	○	○	○	○	○	○	○	○	○
(ii) Neurologist	○	○	○	○	○	○	○	○	○	○
(iii) Care of the Elderly	○	○	○	○	○	○	○	○	○	○
(iv) Cardiologist	○	○	○	○	○	○	○	○	○	○
(v) General Medicine physician	○	○	○	○	○	○	○	○	○	○
(vi) A & E	○	○	○	○	○	○	○	○	○	○
(vii) Acute physician	○	○	○	○	○	○	○	○	○	○
(viii) Other [ ]	○	○	○	○	○	○	○	○	○	○

Thrombolysis in other hospital(s)

1.12. Does your hospital have a formal bypass arrangement with the local ambulance service to take stroke patients to a hospital where a thrombolysis service is available (during those times when you do not provide thrombolysis)?

Yes ○ No ○

If yes:

1.12(a) When did this arrangement begin? [/ /] (dd/mm/yyyy)

1.13. Do you have an agreement with (an)other site(s) to provide thrombolysis for your patients (during the hours when your site does not provide it)?

Yes ○ No ○

If no go to Section 2

1.13(a) How many sites do you have an agreement with? [ ]

1.13(b) Please give the RCP codes of each of these sites [ ] (Please call the helpdesk if you do not know these codes)

1.13(c) Does your site have a joint on call medical rota for thrombolysis with this/these site(s)?

Yes ○ No ○

1.13(d) What level of service is provided by the other site(s) (combined with your site)?

(i) Weekdays: Number of hours per day [ ] hours

(ii) Saturdays: Number of hours per day [ ] hours

(iii) Sundays/Bank Holidays: Number of hours per day [ ] hours

TAB TWO

SECTION 2: ASSESSMENT WARDS TAKING STROKE PATIENTS

General assessment/ decision beds (e.g. Medical Assessment Unit (MAU), Clinical Decision Unit (CDU), Acute Medical Unit)

2.1. Are there ever stroke patients in general assessment/ decision beds e.g. MAU?

Yes ◯ No ◯ (Cannot tick no if B3 is > 0)

If no, go straight to Section 3

For the following questions we have used 'MAU' generically, but please answer in relation to equivalent general assessment/decision beds.

2.2. Of the stroke patients in the MAU today, how many have been there for the following lengths of time? *(N.B. The total must be equal to B3)*

(i) Less than 24 hours [ ]

(ii) 24 – 48 hours [ ]

(iii) 49 – 72 hours [ ]

(iv) 3 – 7 days [ ]

(iii) More than 7 days [ ]

Please answer the following questions if you answered 'yes' to 2.1 even if there are no stroke patients on this ward on the day you complete this form.

2.3. How many beds are in the MAU? [ ]

2.4. How many of these beds have continuous physiological monitoring (ECG, oximetry, blood pressure)?

[ ]

2.5. How many days per week is there a consultant ward round for these beds? [ ]

2.6. When there are stroke patients in the MAU, are they seen by a stroke specialist consultant?

Yes ◯ No ◯

If yes:

2.6(a). How many days per week would a stroke patient be seen by a stroke specialist consultant? [ ]

(e.g. enter '7' if the patient would be seen on every day that they are in the MAU, even if patients are never in MAU for 7 days) *For further examples please click on the help icon or consult the help booklet.*

2.7. Is there a system in place to make sure that there is always a nurse or therapist on duty in the MAU who is trained and assessed as competent in the following?

(a) Swallow screening

Yes ◯ No ◯

(b) Stroke assessment and management

Yes ◯ No ◯

2.8. Is there immediate access to scanning for urgent stroke patients (as defined in the NICE Guidelines) in the MAU?

Yes ◯ No ◯

2.9. Is there a policy for direct admission of stroke patients to the MAU from A&E/front door?

Yes ◯ No ◯

TAB THREE

SECTION 3: STROKE UNITS

3.1. Please give the following details for each of these hospitals:

		Answer separately for each hospital			
	(a) Full name of hospital	**(b)** Total number of stroke unit beds (can be 0).*	**(c)** Number of stroke unit beds **solely** for patients in first 72 hours after stroke	**(d)** Number of stroke unit beds **solely** for patients beyond 72 hours after stroke	**(e)**Number of stroke unit beds used for **both** pre and post-72 hour care
1	*On the web tool the names of hospitals will be auto-completed from A2*				
2					
3					
4					
	TOTAL:				

Note: if 1.1(iii) is chosen (i.e. if your site does not treat patients within 72 hours) 3.1(c) and 3.1(e) above will be greyed out and you will not be able to answer any questions in sections 3A or 3C.

SECTION 3A: STROKE UNITS – Beds for patients in first 72 hours after stroke

Care on stroke unit beds used solely for patients in the first 72 hours after stroke (please answer based on ALL beds noted in **3.1(c)**)

3.2. Are any of the following exclusion criteria ever used to exclude a patient from these beds?

Yes ◯ No ◯

If yes:

3.2(a) Tick all the exclusion criteria that might apply:

(i) Age related ☐

(ii) Stroke severity ☐

(iii) Pre existing dementia ☐

(iv) No rehabilitation potential ☐

(v) End of life care ☐

3.3. Which of the following best describes the admission of pre-72 hour patients to these stroke unit beds? (Please select only one option)

(i) All patients are always directly admitted ◯

(ii) All patients are directly admitted, except for those who have another predominant acute condition which demands management on another ward ◯

(iii) All patients are directly admitted, except for when there is not a bed available in the stroke unit ◯

(iv) Only those patients who may be eligible for thrombolysis are directly admitted ◯

(v) Only those patients who receive thrombolysis are directly admitted ◯

(vi) Some patients are directly admitted, but not as outlined in any of the categories above ◯

(vii) Patients are never directly admitted to the stroke unit ◯

If 3.3(vii) is selected go to 3.4

3.3(a) When is direct admission available for pre-72 hour patients to these beds?

(i) Weekdays: Number of hours per day [ ] hours

(ii) Saturdays: Number of hours per day [ ] hours

(iii) Sundays/Bank Holidays: Number of hours per day [ ] hours

3.4. How many of these beds have continuous physiological monitoring (ECG, oximetry, blood pressure)? [ ]

3.5. How many days per week is there a stroke specialist consultant ward round for these beds? *(If there is more than one location for these beds, please give an average e.g. if there are 20 beds overall and 10 have ward rounds 7 times a week and the other 10 have ward rounds 5 times a week, you should put 6).* [ ]

3.6. Is there immediate access to scanning for urgent stroke patients (as defined in the NICE Guidelines) on these beds?

Yes ◯ No ◯

3.7. Are there acute stroke protocols/guidelines for these beds?

Yes ◯ No ◯

3.8. How many of the following *nursing* staff are there usually on duty at 10am for these beds? (Enter 0 if no staff of that grade). *Only the nursing staff for the beds which are solely used for patients in the first 72 hours after stroke (i.e. the total entered for 3.1c).*

	Weekdays	Saturdays	Sundays/Bank Holidays
(i) Qualified nurses	[ ]	[ ]	[ ]
(ii) Care assistants	[ ]	[ ]	[ ]

3.9. How many nurses are there usually on duty for these beds at 10am who are trained in the following? (Enter 0 if none).

	Weekdays	Saturdays	Sundays/Bank Holidays
(i) Swallow screening	[ ]	[ ]	[ ]
(ii) Stroke assessment and management	[ ]	[ ]	[ ]

SECTION 3B: STROKE UNITS – Beds for patients beyond 72 hours after stroke

Care on stroke unit beds used solely for patients beyond 72 hours after stroke (please answer based on ALL beds noted in **3.1(d)**)

3.10. Are any of the following exclusion criteria ever used to exclude a patient from these beds?

Yes ◯ No ◯

If yes:

3.10(a) Tick all the exclusion criteria that might apply:

(i) Age related ☐
(ii) Stroke severity ☐
(iii) Pre existing dementia ☐
(iv) No rehabilitation potential ☐
(v) End of life care ☐

3.11. How many days per week is there a stroke specialist consultant ward round for these beds? *(If there is more than one location for these beds, please give an estimated average e.g. if there are 20 beds overall and 10 have ward rounds 7 times a week and the other 10 have ward rounds 5 times a week, you should put 6).*

[ ]

3.12. How many of the following *nursing* staff are there usually on duty at 10am for these beds? (Enter 0 if no staff of that grade) *Only the nursing staff for the beds which are solely used for patients beyond the first 72 hours after stroke (i.e. the total entered for 3.1d)*

	Weekdays	Saturdays	Sundays/Bank Holidays
(i) Qualified nurses	[ ]	[ ]	[ ]
(ii) Care assistants	[ ]	[ ]	[ ]

3.13. How many nurses are there usually on duty for these beds at 10am who are trained in the following? (Enter 0 if none).

	Weekdays	Saturdays	Sundays/Bank Holidays
(i) Swallow screening	[ ]	[ ]	[ ]
(ii) Stroke assessment and management	[ ]	[ ]	[ ]

SECTION 3C: STROKE UNITS – Beds for both pre and post 72 hour care

Care on stroke unit beds which are used for both pre and post 72 hour care (please answer based on ALL beds noted in **3.1(e)**)

3.14. Are any of the following exclusion criteria ever used to exclude a patient from these beds?

Yes ○ No ○

If yes:

3.14(a) Tick all the exclusion criteria that might apply:

(i) Age related ☐

(ii) Stroke severity ☐

(iii) Pre existing dementia ☐

(iv) No rehabilitation potential ☐

(v) End of life care ☐

3.15. Which of the following best describes the admission of pre-72 hour patients to these stroke unit beds? (Please select only one option)

(i) All patients are always directly admitted ○

(ii) All patients are directly admitted, except for those who have another predominant acute condition which demands management on another ward ○

(iii) All patients are directly admitted, except for when there is not a bed available in the stroke unit ○

(iv) Only those patients who may be eligible for thrombolysis are directly admitted ○

(v) Only those patients who receive thrombolysis are directly admitted ○

(vi) Some patients are directly admitted, but not as outlined in any of the categories above ○

(vii) Patients are never directly admitted to the stroke unit ○

If 3.15 (vii) is selected go to 3.16

3.15(a) When is direct admission available for pre-72 hour patients to these beds?

(i) Weekdays: Number of hours per day [ ] hours

(ii) Saturdays: Number of hours per day [ ] hours

(iii) Sundays/Bank Holidays: Number of hours per day [ ] hours

3.16. How many of these beds have continuous physiological monitoring (ECG, oximetry, blood pressure)?

[ ]

3.17. How many days per week is there a stroke specialist consultant ward round for these beds? *(If there is more than one location for these beds, please give an average e.g. if there are 20 beds overall and 10 have ward rounds 7 times a week and the other 10 have ward rounds 5 times a week, you should put 6).* [ ]

3.18. Is there immediate access to scanning for urgent stroke patients (as defined in the NICE Guidelines) on these beds?

Yes ◯ No ◯

3.19. Are there acute stroke protocols/guidelines for these beds?

Yes ◯ No ◯

3.20. How many of the following *nursing* staff are there usually on duty at 10am for these beds? (Enter 0 if no staff of that grade). *(N.B. Please do not double count any nurses/care assistants listed in **3.8*** or ***3.12**) Only the nursing staff for the beds which are solely used for patients pre and post 72 hour care (i.e. the total entered for 3.1e.)*

	Weekdays	Saturdays	Sundays/Bank Holidays
(iii) Qualified nurses	[ ]	[ ]	[ ]
(iv) Care assistants	[ ]	[ ]	[ ]

3.21. How many nurses are there usually on duty for these beds at 10am who are trained in the following? (Enter 0 if none). *(N.B. Please do not double count any nurses listed in **3.9*** or ***3.13**)*

	Weekdays	Saturdays	Sundays/Bank Holidays
(i) Swallow screening	[ ]	[ ]	[ ]
(ii) Stroke assessment and management	[ ]	[ ]	[ ]

TAB 4

SECTION 4: SERVICES AND STAFF ACROSS ALL STROKE UNIT BEDS

Do not answer this section if you do not have any stroke units across your site (i.e. if total of 3.1(b) = 0)

4.1. Does your stroke unit have access to the following within 5 days:

(a) Social work expertise Yes ◯ No ◯

(b) Orthotics Yes ◯ No ◯

(c) Orthoptics Yes ◯ No ◯

(d) Podiatry/foot health Yes ◯ No ◯

4.2. Does your stroke unit have access to clinical psychologist(s)? Yes ◯ No ◯

If no go to 4.3

(a) Is this within 5 days? Yes ◯ No ◯

(b) What aspects of stroke care are provided by the clinical psychologist(s)?

	Inpatient		Outpatient	
(i) Mood assessment	Yes ◯	No ◯	Yes ◯	No ◯
(ii) Higher cognitive function assessment	Yes ◯	No ◯	Yes ◯	No ◯
(iii) Mood treatment	Yes ◯	No ◯	Yes ◯	No ◯
(iv) Higher cognitive function treatment	Yes ◯	No ◯	Yes ◯	No ◯
(v) Non cognitive behavioural problems assessment and/or treatment	Yes ◯	No ◯	Yes ◯	No ◯

4.3. What is the total establishment of whole time equivalents (WTEs) of the following qualified professionals and support workers for all your stroke unit beds? (Enter 0 if no establishment). Only tick the 6 day working or 7 day working option if these professionals treat stroke patients ***in relation to stroke management*** at weekends ***on the stroke unit***.

	WTE	5 day working	6 day working	7 day working
(i) Clinical Psychology (qualified)	[ ]	◯	◯	◯
(ii) Clinical Psychology (support worker)				
(iii) Dietetics (qualified)				
(iv) Dietetics (support worker)				
(v) Occupational Therapy (qualified)				
(vi) Occupational Therapy (support worker)				
(vii) Physiotherapy (qualified)				
(viii) Physiotherapy (support worker)				
(ix) Speech & Language Therapy (qualified)				
(x) Speech & Language Therapy (support worker)				
(xi) Pharmacy (qualified)				
(xii) Pharmacy (support worker)				
(xiii) Nursing (qualified)				
(xiv) Nursing (care assistant/support worker)				

4.4. Do patients on the stroke unit stay in bed until assessed by a physiotherapist?

Yes ◯ No ◯

4.5. How many sessions of junior doctor time are there per week in total for all stroke unit beds?

[ ] Sessions

Team Meetings

4.6. How often are there formal team meetings, on average, for the interchange of information about individual patients on the stroke unit?

(i) Less than once a week ◯
(ii) Once a week ◯
(iii) Twice a week ◯
(iv) More than twice a week ◯

4.6(a) Which of the following disciplines regularly attend the team meetings to discuss stroke patients on the stroke unit(s)?

(i) Clinical Psychology ◯
(ii) Dietetics ◯
(iii) Medicine (senior doctor) ◯
(iv) Nursing ◯
(v) Occupational Therapy ◯
(vi) Physiotherapy ◯
(vii) Social Work ◯
(viii) Speech and Language Therapy ◯

4.6(b) Are **all** stroke unit inpatients discussed in these meetings?

Yes ◯ No ◯

4.6(c) Are stroke inpatients on other wards ever discussed in these meetings?

Yes ◯ No ◯ Not applicable because all stroke patients always on stroke unit ◯

If no or N/A selected for 4.6(c) go to 4.7

4.6(d) Are **all** stroke inpatients on other wards discussed in these meetings?

Yes ◯ No ◯

Palliative Care

4.7. Are palliative care stroke patients treated on the stroke unit(s)?

Yes ◯ No ◯

If yes:

4.7(a) Is the Liverpool Care Pathway used?

Yes ◯ No ◯

4.7(b) Is there same day access to a specialist palliative care team on weekdays?

Yes ◯ No ◯

4.7(c) Is there same day access to a specialist palliative care team at the weekend?

Yes ◯ No ◯

TAB 5

SECTION 5: OTHER STROKE CARE MODELS

EARLY SUPPORTED DISCHARGE TEAM

Definition – Early supported discharge team refers to a multidisciplinary team which provides rehabilitation and support in a community setting with the aim of reducing the duration of hospital care for stroke patients.

We will ask you about two types of ESD team in this part – stroke/neurology specialist and non-specialist (please make sure you answer the correct section(s) – this could be none, either or both)

Specialist Early Supported Discharge Team

A stroke/neurology specific team is one which treats stroke patients either solely or as well as general neurology patients.

5.1. Do you have access to a **stroke/neurology specific** early supported discharge multidisciplinary team?

Yes ◯ No ◯

If no go to 5.2

5.1(a) The team treats:

(i) Only stroke patients ◯

(ii) Stroke and general neurology patients ◯

(iii) Stroke and/or general neurology and other patients ◯

5.1(b) What percentage of your catchment area has access to this team? [ ]

5.1(c) Does the team include the following professional groups (please select yes or no) and what is the current approximate waiting time for each? (Answer for the PCT/borough that you get most patients from)

		Patient seen at home:			
Profession in team?		**Within 48h**	**49h - 7days**	**8 - 14days**	**>14days**
Clinical Psychologist	Yes ◯ No ◯	◯	◯	◯	◯
Dietitian	Yes ◯ No ◯	◯	◯	◯	◯
Occupational therapist	Yes ◯ No ◯	◯	◯	◯	◯
Physiotherapist	Yes ◯ No ◯	◯	◯	◯	◯
Social worker	Yes ◯ No ◯	◯	◯	◯	◯
Specialist doctor	Yes ◯ No ◯	◯	◯	◯	◯
Specialist nurse	Yes ◯ No ◯	◯	◯	◯	◯
Speech & language therapist	Yes ◯ No ◯	◯	◯	◯	◯
Generic therapy worker	Yes ◯ No ◯	◯	◯	◯	◯
Family/Carer support worker	Yes ◯ No ◯	◯	◯	◯	◯

5.1(d) How many of your stroke patients have received treatment from the team at home in the last week? (N.B. each patient can only be counted once no matter how many times they were visited) [ ]

5.1(e) What percentage of your stroke patients receive early supported discharge from a stroke/neurology specific team? [ ]

5.1(f) Are there delays in discharging patients suitable for ESD because of delays in ESD response time/ therapy assessments/ social work/ home adaptations?

Yes ◯ No ◯

Non-specialist Early Supported Discharge Team

5.2. Do you have access to a **non-specialist** early supported discharge multidisciplinary team?

Yes ◯ No ◯

If no go to 5.3

5.2(a) What percentage of your catchment area has access to this team? [ ]

5.2(b) Does the team include the following professional groups (please select yes or no) and what is the current approximate waiting time for each? (Answer for the PCT/borough that you get most patients from)

		Patient seen at home:			
Profession in team?		**Within 48h**	**49h - 7days**	**8 - 14days**	**>14days**
Clinical Psychologist	Yes ◯ No ◯	◯	◯	◯	◯
Dietitian	Yes ◯ No ◯	◯	◯	◯	◯
Occupational therapist	Yes ◯ No ◯	◯	◯	◯	◯
Physiotherapist	Yes ◯ No ◯	◯	◯	◯	◯
Social worker	Yes ◯ No ◯	◯	◯	◯	◯
Doctor	Yes ◯ No ◯	◯	◯	◯	◯
Nurse	Yes ◯ No ◯	◯	◯	◯	◯
Speech & language therapist	Yes ◯ No ◯	◯	◯	◯	◯
Generic therapy worker	Yes ◯ No ◯	◯	◯	◯	◯
Family/Carer support worker	Yes ◯ No ◯	◯	◯	◯	◯

5.2(c) How many of your stroke patients have received treatment from the team at home in the last week? (N.B. each patient can only be counted once no matter how many times they were visited) [ ]

5.2(d) What percentage of your stroke patients receive early supported discharge from a generic team? [ ]

5.2(e) Are there delays in discharging patients suitable for ESD because of delays in ESD response time/ therapy assessments/ social work/ home adaptations?

Yes ◯ No ◯

LONGER TERM COMMUNITY REHABILITATION TEAM

Specialist Community Rehabilitation Team

5.3. Do you have access to a **stroke/neurology specific** community rehabilitation team for longer term management?

Yes ◯ No ◯

If no go to 5.4

5.3(a) The team treats:

(i) Only stroke patients ◯

(ii) Stroke and general neurology patients ◯

(iii) Stroke and/or general neurology and other patients ◯

5.3(b) What percentage of your catchment area has access to this team? [ ]

5.3(c) Does the team include the following professional groups (please select all that apply) and what is the current approximate waiting time for each? (answer for the PCT/borough that you get most patients from)

		Patient seen at home:			
Profession in team?		**Within 48h**	**49h - 7days**	**8 - 14days**	**>14days**
Clinical Psychologist	Yes ◯ No ◯	◯	◯	◯	◯
Dietitian	Yes ◯ No ◯	◯	◯	◯	◯
Occupational therapist	Yes ◯ No ◯	◯	◯	◯	◯
Physiotherapist	Yes ◯ No ◯	◯	◯	◯	◯
Social worker	Yes ◯ No ◯	◯	◯	◯	◯
Specialist doctor	Yes ◯ No ◯	◯	◯	◯	◯
Specialist nurse	Yes ◯ No ◯	◯	◯	◯	◯
Speech & language therapist	Yes ◯ No ◯	◯	◯	◯	◯
Generic therapy worker	Yes ◯ No ◯	◯	◯	◯	◯
Family/Carer support worker	Yes ◯ No ◯	◯	◯	◯	◯

5.3(d) How many of your stroke patients have received treatment from the team at home in the last week? (N.B. each patient can only be counted once no matter how many times they were visited)

[ ]

5.3(e) Are there delays in discharging patients for longer term community management because of delays in therapy assessments/ social work/ home adaptations?

Yes ◯ No ◯

Non-specialist Community Rehabilitation Team

5.4. Do you have access to a **non-specialist** community rehabilitation team for longer term management?

Yes ◯ No ◯

If no go to 5.5

5.4(a) What percentage of your catchment area has access to this team? [ ]

5.4(b) Does the team include the following professional groups (please select all that apply) and what is the current approximate waiting time for each? (Answer for the PCT/borough that you get most patients from)

		Patient seen at home			
Profession in team?		**Within 48h**	**49h - 7days**	**8 - 14days**	**>14days**
Clinical Psychologist	Yes ◯ No ◯	◯	◯	◯	◯
Dietitian	Yes ◯ No ◯	◯	◯	◯	◯
Occupational therapist	Yes ◯ No ◯	◯	◯	◯	◯
Physiotherapist	Yes ◯ No ◯	◯	◯	◯	◯
Social worker	Yes ◯ No ◯	◯	◯	◯	◯
Doctor	Yes ◯ No ◯	◯	◯	◯	◯
Nurse	Yes ◯ No ◯	◯	◯	◯	◯
Speech & language therapist	Yes ◯ No ◯	◯	◯	◯	◯
Generic therapy worker	Yes ◯ No ◯	◯	◯	◯	◯
Family/Carer support worker	Yes ◯ No ◯	◯	◯	◯	◯

5.4(c) How many of your stroke patients have received treatment from the team at home in the last week? (N.B. each patient can only be counted once no matter how many times they were visited)

[ ]

5.4(d) Are there delays in discharging patients for longer term community management because of delays in therapy assessments/ social work/ home adaptations?

Yes ◯ No ◯

TAB 6

SECTION 6: TIA / NEUROVASCULAR SERVICE

6.1. Do you have a neurovascular clinic?

Yes ◯ No ◯

If no:

6.1(a) Who provides this for your patients?

(i) Another site within our trust ◯

(ii) Another trust ◯ Please give trust code: [ ]

Please go to Section 7

If Yes:

(b) How many clinics within a 4 week period? [ ]

(c) How many new patients were seen during the past 4 weeks? [ ]

(d) What is the current average waiting time for an appointment? [ ] days

6.2. What is the usual waiting time to get carotid imaging?

	(a) For HIGH risk TIA patients (ABCD2 score 4 or more)	**(b)** For LOW risk TIA patients (ABCD2 score less than 4)
(i) The same day (7 days a week)	◯	◯
(ii) The same day (5 days a week)	◯	◯
(iii) The next day	◯	◯
(iv) The next weekday	◯	◯
(v) Within a week	◯	◯
(vi) Longer than a week	◯	◯

6.3. Within what timescale can you see, investigate and initiate treatment for ALL your **HIGH** risk TIA patients?

Tick which service(s) you have:	**a)** Inpatient Yes ◯ No ◯	**(b)** Outpatient Yes ◯ No ◯
(i) The same day (7 days a week)	◯	◯
(ii) The same day (5 days a week)	◯	◯
(iii) The next day	◯	◯
(iv) The next weekday	◯	◯
(v) Within a week	◯	◯
(vi) Within a month	◯	◯
(vii) Longer than a month	◯	◯

6.4. Within what timescale can you see, investigate and initiate treatment for ALL your **LOW** risk TIA patients?

Tick which service(s) you have:	**(a)** Inpatient Yes ◯ No ◯	**(b)** Outpatient Yes ◯ No ◯
(i) The same day (7 days a week)	◯	◯
(ii) The same day (5 days a week)	◯	◯
(iii) The next day	◯	◯
(iv) The next weekday	◯	◯
(v) Within a week	◯	◯
(vi) Within a month	◯	◯
(vii) Longer than a month	◯	◯

TAB 7

SECTION 7: SPECIALIST ROLES

7.1. Is there a clinician with specialist knowledge of stroke who is formally recognised as having principal responsibility for stroke services?

Yes ◯ No ◯

If yes:

7.1(a) Please select one option

Doctor ◯
Nurse ◯
Therapist ◯

7.2. Do you have an accredited specialist registrar in post registered for stroke specialist training?

Yes ◯ No ◯

7.3. How many PAs do you have for Stroke Consultant Physicians? [ ] PAs

7.3(a) How many of these PAs are Direct Clinical Care (DCCs) for Stroke? [ ]

7.4. How many of the following stroke specialist nursing and therapy staff do you have at each of the following bands? Enter 0 if no staff of that grade.

	Band 7	Band 8a	Band 8b	Band 8c
Clinical Psychologists				
Dietitian				
Nurses				
Occupational Therapists				
Physiotherapists				
Speech and Language Therapists				

7.5. Do you provide a service which actively:

(a) Supports stroke patients to remain in, return to or withdraw (if appropriate) from work?
Yes ◯ No ◯

(b) Provides educational or vocational training?
Yes ◯ No ◯

7.6 Do you have any unfilled stroke consultant posts?
Yes ◯ No ◯

If yes,
7.6(a) How many PAs do these posts cover? [ ] PAs

7.6(b) For how many months have these posts been funded but unfilled? [ ] months

TAB 8

SECTION 8: QUALITY IMPROVEMENT, RESEARCH, TRAINING & LEADERSHIP

8.1. Has a report on stroke services been prepared for the trust board between 1 April 2011 and 31 March 2012 (e.g. regarding the Sentinel Audit/ Vital Signs)?

Yes ◯ No ◯

8.2. What level of management takes responsibility for the follow-up of the results and recommendations of the Sentinel Stroke Audit? (Select all that apply)

(i) Executive on the Board ◯
(ii) Non-executive on the Board ◯
(iii) Chairman of Clinical Governance (or equivalent) ◯
(iv) Directorate Manager ◯
(v) Stroke Clinical Lead ◯
(vi) Other (please specify) ◯
(vii) No specific individual ◯
(viii) Not known ◯

8.3. Is there a strategic group responsible for stroke?

Yes ◯ No ◯

If yes:

8.3(a) Which of the following does it include? (select all that apply)

(i) Ambulance trust representative ◯
(ii) Clinician ◯
(iii) Patient representative ◯
(iv) Commissioner ◯
(v) Social Services ◯
(vi) Stroke Network representative ◯
(vii) Trust board member ◯

8.4. Is there funding for external courses available for nurses and therapists?

Yes ◯ No ◯

If yes:

8.4(a) How many staff days were paid for between 1 April 2011 and 31 March 2012? [ ]

8.5. Is there a system in place which provides feedback on individual cases to the referring ambulance

clinicians?

Yes ◯ No ◯

8.6. How often is there a formal survey seeking patient/carer views on stroke services?

(i) Never ◯
(ii) Less than once a year ◯
(iii) 1-2 times a year ◯
(iv) 3-4 times a year ◯
(v) More than 4 a year ◯
(vi) Continuous (every patient) ◯

8.7. Has a report been produced between 1 April 2011 and 31 March 2012 which analysed the views of stroke patients?

Yes ◯ No ◯

8.8. Are patient surveys and/or reports discussed in a formal meeting and plans devised to act upon findings?

Yes ◯ No ◯

Research Information

8.9. Is information provided to patients about research studies and how to participate?

Yes ◯ No ◯

8.10. How many stroke studies are registered with your Research & Development Department (on the day you complete this form)?

Total [ ]

8.11 What is the total number of WTEs allotted in your site for stroke data collection?

WTEs [ ]

8.11 (a) What disciplines are covered by the WTEs for stroke data collection?

Doctor ☐ Manager ☐ Nurse ☐ Therapist ☐ Clinical Audit/Clinical Governance ☐
Data clerk/analyst with specific responsibility for stroke ☐
Data clerk/analyst with general audit responsibilities ☐

Leadership

Questions 8.12 – 8.23 relate to your answer for Q7.1 (If No was selected for Q7.1 the following questions are not applicable)

From Q7.1 a clinical leader is a clinician with specialist knowledge of stroke who is formally recognised as having principal responsibility for stroke services.

8.12 How often does the clinical leader meet with senior management (director level) within the trust?

(i) Never ○
(ii) Annually ○
(iii) Twice a year ○
(iv) Quarterly ○
(v) Monthly ○

8.13 How often does the clinical leader meet with local clinicians from neighbouring trusts?

(i) Never ○
(ii) Annually ○
(iii) Twice a year ○
(iv) Quarterly ○
(v) Monthly ○

8.14 How often are there leadership meetings in which strategic planning is discussed?

(i) Never ○
(ii) Annually ○
(iii) Twice a year ○
(iv) Quarterly ○
(v) Monthly ○

8.15 Is there a forum for all staff to communicate with leader(s)?

Yes ○ No ○

8.16 Are there mechanisms in place for the leader to act upon team performance measurements? (For example management of adverse events)

Yes ○ No ○

8.17 Is there a mission statement available for the team?

Yes ◯ No ◯

8.18 Is the leader an invited member of any external (stroke) specialist advisory groups (and at what level – i.e. regional, national etc)?

Yes ◯ No ◯

8.19 Is the link between stroke service income and performance quality explained to staff (i.e. via appraisal/ongoing training) by leader(s)?

Yes ◯ No ◯

8.20 Does the clinical leader have protected time to promote self development?

Yes ◯ No ◯

8.21 Are senior staff given protected time to teach junior staff?

Yes ◯ No ◯

8.22 Does the leader facilitate the dissemination of research (e.g. journal club/email learning group)?

Yes ◯ No ◯

8.23 Does the leader have protected time to be involved in academic research?

Yes ◯ No ◯

TAB 9

SECTION 9: PATIENT/ CARER COMMUNICATION

	Stroke Unit(s)		Outpatients	
9.1. Does the organisation of the ward/unit enable patients to have access to their management plan?	Yes ○	No ○	Yes ○	No ○

9.2. Is there patient information literature displayed in unit/ward on the following?

	Stroke Unit(s)		Outpatients	
	Yes	No	Yes	No
(a) Patient versions of national or local guidelines/standard	○	○	○	○
(b) Social Services local Community Care arrangements	○	○	○	○
(c) The Benefits Agency	○	○	○	○
(d) Information on stroke	○	○	○	○
(e) Secondary prevention advice	○	○	○	○

9.3. Are patients given a personalised rehabilitation discharge plan?

Yes ○ No ○

9.4. Does the stroke service have formal links with patients and carers organisations for communication on any of the following?

Yes ○ No ○

9.4. If yes, select all that apply:

(i) Service provision ○

(ii) Audit ○

(iii) Service reviews and future plans ○

(iv) Developing research ○

9.5. Does the stroke service have formal links with community user groups for stroke?

Yes ○ No ○

9.6. Is there a policy to give patients a named contact on transfer from hospital to community?

Yes ○ No ○

TAB 10

SECTION 10: FUTURE PLANS

10.1. Will there be any changes in service with regard to thrombolysis in the next 12 months?

Yes ◯ No ◯

If yes:

10.1(a) What change will there be:

(i) We will be offering thrombolysis for first time ◯

(ii) We will be increasing the hours in which we offer thrombolysis ◯

(iii) We will be decreasing the hours in which we offer thrombolysis ◯

(iv) We will still offer thrombolysis and another site will be providing thrombolysis for us in the hours we do not offer it ◯

(v) We will provide thrombolysis for another site ◯

(vi) We will no longer provide thrombolysis but (an)other site(s) will provide it for our patients ◯

(vii) We will no longer provide thrombolysis ◯

10.2. Will there be any changes to bed provision on the stroke unit(s) in the next 12 months?

Yes ◯ No ◯

If yes:

10.2(a) What change will there be:

(i) The number of beds will increase ◯

(ii) The number of beds will decrease ◯

10.3. Will there be any changes in access to early supported discharge teams in the next 12 months?

Yes ◯ No ◯

If yes:

10.3(a). What changes will there be?

(i) We will have access to a stroke/neurology specific early supported discharge team ◯

(ii) We will no longer have access to a stroke/neurology specific early supported discharge team ◯

(iii) We will have access to a non-specialist early supported discharge team ◯

(iv) We will no longer have access to a non-specialist early supported discharge team ◯

10.4. Will there be any changes in access to community rehabilitation teams for longer term management in the next 12 months?

Yes ◯ No ◯

If yes:

10.4(a). What changes will there be?

(i) We will have access to a stroke/neurology specific community rehabilitation team ◯

(ii) We will no longer have access to a stroke/neurology specific community rehabilitation team ◯

(iii) We will have access to a non-specialist community rehabilitation team ◯

(iv) We will no longer have access to a non-specialist community rehabilitation team ◯

10.5. Will there be any changes in provision of neurovascular/TIA services in the next 12 months?

Yes ◯ No ◯

If yes:

10.5(a) What changes will there be?

(i) We will no longer have a neurovascular clinic ◯

(ii) We will have a neurovascular clinic ◯

(iii) We will increase the number of clinics we have in a 4 week period ◯

(iv) We will decrease the number of clinics we have in a 4 week period ◯

TAB 11

SECTION 11: OTHER HOSPITALS/ UNITS IN THE STROKE PATHWAY

11A. How many other locations, providing bed-based rehabilitation *(i.e. community hospital beds, intermediate care beds, rehab stroke unit beds, generic rehab beds)*, take at least 10 patients per year with a primary diagnosis of stroke (from your hospital(s) i.e. the patients are transferred from the hospital(s) entered in A2)? [ ]

Please give the following details for each of these hospitals/ units (up to a maximum of 10 – if there are more than 10, please choose the 10 which receive the most patients from you):

We will be auditing patient care in community hospitals as part of the new stroke audit SSNAP. Could you please supply us with the name and email addresses of the people who would be able to provide details of patient care in these hospitals?

Hospital 1

11.1

(a) Full name of hospital/ unit: _____

(b) Which PCT in England (or equivalent in Wales and Northern Ireland) is it under?

_____

(c) Is this a stroke unit?

Yes ◯ No ◯

(d) Total number of stroke unit beds: [ ] (if (c) is yes)

(e) Current number of stroke inpatients (can be 0): [ ]

(f) Who provides medical cover for stroke patients in each unit? **Select all that apply**

(i) Stroke specialist doctor ◯

(ii) Patient's own GP ◯

(iii) Any GP ◯

(iv) Other (please specify) ◯ [ ]

(g) Do patients within this unit have access, at least 5 days per week, to the following: **Select all that apply**

(i) Occupational Therapy ◯

(ii) Physiotherapy ◯

(iii) Speech and Language Therapy ◯

Please give the name and email address of key contact in Hospital 1?

Name: [ ] Email: [ ]

Hospital 2

11.2.

(a) Full name of hospital/ unit: _____

(b) Which PCT is it under? _____

(c) Is this a stroke unit?

Yes ◯ No ◯

(d) Total number of stroke unit beds: [ ] (if (c) is yes)

(e) Current number of stroke inpatients (can be 0): [ ]

(f) Who provides medical cover for stroke patients in each unit? **Select all that apply**

(i) Stroke specialist doctor ◯

(ii) Patient's own GP ◯

(iii) Any GP ◯

(iv) Other (please specify) ◯ [ ]

(g) Do patients within this unit have access, at least 5 days per week, to the following: **Select all that apply**

(i) Occupational Therapy ◯

(ii) Physiotherapy ◯

(iii) Speech and Language Therapy ◯

Please give the name and email address of key contact in Hospital 2?

Name: [ ] Email: [ ]

Hospital 3

11.3.

(a) Full name of hospital/ unit: _____

(b) Which PCT is it under? _____

(c) Is this a stroke unit?

Yes ◯ No ◯

(d) Total number of stroke unit beds: [ ] (if (c) is yes)

(e) Current number of stroke inpatients (can be 0): [ ]

(f) Who provides medical cover for stroke patients in each unit? **Select all that apply**

(i) Stroke specialist doctor ◯

(ii) Patient's own GP ◯

(iii) Any GP ◯

(iv) Other (please specify) ◯ [ ]

(g) Do patients within this unit have access, at least 5 days per week, to the following: **Select all that apply**

(i) Occupational Therapy ◯

(ii) Physiotherapy ◯

(iii) Speech and Language Therapy ◯

Please give the name and email address of key contact in Hospital 3?

Name: [ ] Email: [ ]

Up to a maximum of 10 hospitals

Appendix 3: List of Participating Hospitals and Trusts by Region

SHA Cluster/ Country	SHA/Region	Site Name 2012	Number of hospitals included	Hospitals
London	**London**	Barking, Havering and Redbridge University Hospitals NHS Trust	2	Queens Hospital King George Hospital
		Barnet and Chase Farm Hospitals NHS Trust	2	Barnet Hospital General Hospital Chase Farm Hospital
		Barts Health NHS Trust (Newham University Hospital)	1	Newham University Hospital
		Barts Health NHS Trust (Royal London Hospital)	1	Royal London Hospital
		Barts Health NHS Trust (Whipps Cross Hospital)	1	Whipps Cross University Hospital
		Chelsea and Westminster Hospital NHS Foundation Trust	1	Chelsea and Westminster Hospital
		Croydon Health Services NHS Trust	1	Croydon Health Services NHS Trust
		Epsom and St Helier University Hospitals NHS Trust (St Helier Hospital)	1	St Helier Hospital
		Guy's and St Thomas' Hospital NHS Foundation Trust	1	St Thomas' Hospital
		Hillingdon Hospitals NHS Foundation Trust	1	The Hillingdon Hospital NHS Foundation Trust
		Homerton University Hospital NHS Foundation Trust	1	Homerton University Hosptial
		Imperial College Healthcare NHS Trust	2	Charing Cross Hospital St Mary's Hospital
		King's College Hospital NHS Foundation Trust	1	King's College Hospital
		Kingston Hospital NHS Trust	1	Kingston Hospital NHS Trust
		Lewisham Healthcare NHS Trust	1	Lewisham Healthcare NHS trust
		North Middlesex University Hospital NHS Trust	1	North Middlesex University Hospital
		North West London Hospitals NHS Trust (Northwick Park Hospital)	1	Northwick Park Hospital
		Royal Free London NHS Foundation Trust	1	Royal Free Hospital
		South London Healthcare NHS Trust	2	Princess Royal University Hospital Queen Elizabeth Hospital
		St George's Healthcare NHS Trust	1	St George's Hospital Healthcare NHS Trust
		University College London Hospitals NHS Foundation Trust	2	University College Hospital London The National Hospital for Neurology and Neurosurgery
		West Middlesex University Hospital NHS Trust	1	West Middlesex University Hospital NHS Trust
Midlands and East	**East Midlands**	Chesterfield Royal Hospital NHS Foundation Trust	1	Chesterfield Royal Hospital
		Derby Hospitals NHS Foundation Trust	1	Derby Hospitals NHS Foundation Trust
		Doncaster and Bassetlaw Hospitals NHS Foundation Trust	2	Doncaster Royal Infirmary Bassetlaw Distrcit General Hospital

SHA Cluster/ Country	SHA/Region	Site Name 2012	Number of hospitals included	Hospitals
		Kettering General Hospital NHS Foundation Trust	1	Kettering General Hospital
		Milton Keynes Hospital NHS Foundation Trust	1	Milton Keynes Hospital NHS Foundation Trust
		Northampton General Hospital NHS Trust	1	Northampton general Hospital
		Nottingham University Hospitals NHS Trust	1	Nottingham University Hospitals NHS Trust
		Sherwood Forest Hospitals NHS Foundation Trust	1	King's Mill Hospital
		United Lincolnshire Hospitals NHS Trust (Grantham and District Hospital)	1	Grantham and District Hospital
		United Lincolnshire Hospitals NHS Trust (Lincoln County)	1	Lincoln County hospital
		United Lincolnshire Hospitals NHS Trust (Pilgrim Hospital)	1	Pilgrim Hospital
		University Hospitals of Leicester NHS Trust	1	Leicester Royal Infirmary
	East of England	Basildon and Thurrock University Hospitals NHS Foundation Trust	1	Basildon and Thurrock University Hospital
		Bedford Hospital NHS Trust	1	Bedford Hospital NHS Trust
		Cambridge University Hospitals NHS Foundation Trust	1	Addenbrookes Hospital
		Colchester Hospital University NHS Foundation Trust	1	Colchester General Hospital
		East and North Hertfordshire NHS Trust	1	Lister Hospital
		Hinchingbrooke Health Care NHS Trust	1	Hinchingbrooke Hospital
		Ipswich Hospital NHS Trust	1	Ipswich Hospital
		James Paget University Hospitals NHS Foundation Trust	1	James Paget University Hospital
		Luton and Dunstable Hospital NHS Foundation Trust	1	Luton & Dunstable University Hospital
		Mid Essex Hospital Services NHS Trust	1	Broomfield Hospital
		Norfolk and Norwich University Hospitals NHS Foundation Trust	1	Norfolk and Norwich University Hospitals NHS Foundation Trust
		Peterborough and Stamford Hospitals NHS Foundation Trust	1	Peterborough City Hospital
		Princess Alexandra Hospital NHS Trust	1	Princess Alexandra Hospital
		Queen Elizabeth Hospital King's Lynn NHS Foundation Trust	1	The Queen Elizabeth Hospital Kings Lynn NHS Foundation Trust
		Southend University Hospital NHS Foundation Trust	1	Southend University Foundation Hospital Trust
		West Hertfordshire Hospitals NHS Trust	1	Watford General Hospital
		West Suffolk Hospital NHS Foundation Trust	1	West Suffolk Hospital
	West Midlands	Burton Hospitals NHS Foundation Trust	1	Queens Hospital
		Dudley Group NHS Foundation Trust	1	Russell's Hall Hospital
		George Eliot Hospital NHS Trust	1	George Eliot Hospital
		Heart of England NHS Foundation Trust (Birmingham Heartlands and Solihull Hospitals)	2	Birmingham Heartlands Solihull Hospital
		Heart of England NHS Foundation Trust (Good Hope Hospital)	1	Good Hope Hospital

SHA Cluster/ Country	SHA/Region	Site Name 2012	Number of hospitals included	Hospitals
		Royal Wolverhampton Hospitals NHS Trust	1	New Cross Hospital
		Sandwell and West Birmingham Hospitals NHS Trust (City Hospital)	1	City hospital
		Sandwell and West Birmingham Hospitals NHS Trust (Sandwell District Hospital)	1	Sandwell hospital
		Shrewsbury and Telford Hospital NHS Trust	2	Royal Shrewsbury Hospital Princess Royal Hospital
		South Warwickshire NHS Foundation Trust	1	South Warwickshire NHS Foundation Trust
		University Hospital of North Staffordshire NHS Trust combined with Staffordshire and Stoke on Trent Partnership NHS Trust	1	University Hospital of North Staffordshire
		University Hospitals Birmingham NHS Foundation Trust in collaboration with Birmingham Community Healthcare NHS Trust	1	Queen Elizabeth Hospital, Birmingham
		University Hospitals Coventry and Warwickshire NHS Trust	1	University Hospital Coventry & Warwickshire NHS Trust
		Walsall Healthcare NHS Trust	1	Walsall healthcare NHS Trust
		Worcestershire Acute Hospitals NHS Trust (Alexandra Hospital Redditch)	1	Alexandra Hospital
		Worcestershire Acute Hospitals NHS Trust (Worcester Royal Hospital)	1	Worcestershire Royal Hospital
		Wye Valley NHS Trust	1	County Hospital, Hereford
North of England	**North East**	City Hospitals Sunderland NHS Foundation Trust	1	City Hospitals Sunderland
		County Durham and Darlington NHS Foundation Trust	1	University hospital of North Durham
		Gateshead Health NHS Foundation Trust	1	Queen Elizabeth Hospital Gateshead
		Newcastle upon Tyne Hospitals NHS Foundation Trust	3	Royal Victoria Infirmary Hospital Newcastle General Hospital Freeman Hospital
		North Tees and Hartlepool NHS Foundation Trust	2	University Hospital of North Tees University Hospital of Hartlepool
		Northumbria Healthcare NHS Foundation Trust (Hexham Hospital)	1	Hexham General Hospital
		Northumbria Healthcare NHS Foundation Trust (North Tyneside General Hospital)	1	North Tyneside General Hospital
		Northumbria Healthcare NHS Foundation Trust (Wansbeck General Hospital)	1	Wansbeck General Hospital
		South Tees Hospitals NHS Foundation Trust	1	The James Cook University Hospital
		South Tyneside NHS Foundation Trust	1	South Tyneside NHS Foundation Trust
	North West	Aintree University Hospitals NHS Foundation Trust	1	Aintree University Hospital NHS Foundation Trust
		Blackpool Teaching Hospitals NHS Foundation Trust	1	Blackpool Victoria Hospital
		Bolton NHS Foundation Trust	1	Royal Bolton Hospital
		Central Manchester University Hospitals NHS Foundation Trust (Manchester Royal Infirmary)	1	Manchester Royal Infirmary
		Central Manchester University Hospitals NHS Foundation Trust (Trafford General Hospital)	1	Trafford General Hospital

SHA Cluster/ Country	SHA/Region	Site Name 2012	Number of hospitals included	Hospitals
		Countess of Chester Hospital NHS Foundation Trust	1	Countess of Chester Hospital
		East Cheshire NHS Trust	1	Macclesfield District General Hospital
		East Lancashire Hospitals NHS Trust	1	Royal Blackburn Hospital
		Lancashire Teaching Hospitals NHS Foundation Trust	1	Royal Preston Hospital
		Mid Cheshire Hospitals NHS Foundation Trust	1	Leighton Hospital
		North Cumbria University Hospitals NHS Trust (Cumberland Infirmary)	1	Cumberland Infirmary
		North Cumbria University Hospitals NHS Trust (West Cumberland Hospital)	1	West Cumberland Hospital
		Pennine Acute Hospitals NHS Trust (Fairfield General Hospital and Rochdale Infirmary)	1	Fairfield General Hospital
		Pennine Acute Hospitals NHS Trust (North Manchester General Hospital)	1	North Manchester General Hospital
		Pennine Acute Hospitals NHS Trust (Royal Oldham Hospital)	1	Royal Oldham Hospital
		Royal Liverpool and Broadgreen University Hospitals NHS Trust	1	Royal Liverpool & Broadgreen University Hospital (NHS) Trust
		Salford Royal NHS Foundation Trust	1	Salford Royal Foundation Trust
		Southport and Ormskirk Hospital NHS Trust	1	Southport & Formby District General Hospital
		St Helens & Knowsley Teaching Hospitals NHS Trust	1	Whiston Hospital
		Stockport NHS Foundation Trust	1	Stockport NHS Foundation Trust
		Tameside Hospital NHS Foundation Trust in collaboration with NHS Tameside and Glossop	1	Tameside Hospital NHS Foundation Trust
		University Hospital of South Manchester NHS Foundation Trust	1	University Hospital of South Manchester
		University Hospitals of Morecambe Bay NHS Foundation Trust (Furness General Hospital)	1	Furness General Hospital
		University Hospitals of Morecambe Bay NHS Foundation Trust (Royal Lancaster Infirmary & Westmorland General Hospital)	1	Royal Lancaster Infirmary
		Warrington and Halton Hospitals NHS Foundation Trust	1	Warrington and Halton Hospitals NHS Foundation Trust
		Wirral University Teaching Hospital NHS Foundation Trust	1	Wirral University Teaching Hospital NHS Foundation Trust
		Wrightington, Wigan and Leigh NHS Foundation Trust	1	Royal Albert Edward Infirmary
	Yorkshire and the Humber	Airedale NHS Foundation Trust	1	Airedale NHS Foundation Trust
		Barnsley Hospital NHS Foundation Trust	1	Barnsley Hospital NHS Foundation Trust
		Bradford Teaching Hospitals NHS Foundation Trust	1	Bradford Royal Infirmary
		Calderdale and Huddersfield NHS Foundation Trust	2	Calderdale Royal Hospital Huddersfield Royal Infirmary
		Harrogate and District NHS Foundation Trust	1	Harrogate District Hospital
		Hull and East Yorkshire Hospitals NHS Trust	1	Hull Royal Infirmary
		Leeds Teaching Hospitals NHS Trust	2	Leeds General Infirmary St James Hospital

SHA Cluster/ Country	SHA/Region	Site Name 2012	Number of hospitals included	Hospitals
		Mid Yorkshire Hospitals NHS Trust	3	Pinderfields Hospital Dewsbury & District Hospital Pontefract Hospital
		Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Diana Princess of Wales Hospital)	1	Diana, Princess of Wales Hospital
		Northern Lincolnshire and Goole Hospitals NHS Foundation Trust (Scunthorpe General Hospital)	1	Scunthorpe General Hospital
		Rotherham NHS Foundation Trust	1	Rotherham NHS Foundation Trust
		Scarborough and North East Yorkshire Healthcare NHS Trust	2	Scarborough Hospital Bridlington Hospital
		Sheffield Teaching Hospitals NHS Foundation Trust	2	Royal Hallamshire Hospital Northern General Hospital
		York Hospitals NHS Foundation Trust	1	York Teaching Hospital NHS Foundation Trust
South of England	**South Central**	Buckinghamshire Healthcare NHS Trust	1	Wycombe Hospital
		Hampshire Hospitals NHS Foundation Trust	2	Royal Hampshire County Hospital North Hampshire Hospital
		Heatherwood and Wexham Park Hospitals NHS Foundation Trust	2	Wexham Park Hospital Heatherwood Hospital
		Oxford University Hospitals NHS Trust (Horton General Hospital)	1	Horton General Hospital
		Oxford University Hospitals NHS Trust (John Radcliffe Hospital)	1	John Radcliffe Hospital
		Portsmouth Hospitals NHS Trust jointly with Hampshire and Portsmouth City PCTs	1	Queen Alexandra Hospital
		Royal Berkshire NHS Foundation Trust	1	Royal Berkshire Hospital
		University Hospital Southampton NHS Foundation Trust	1	University Hospital Southampton NHS Foundation Trust
	South East Coast	Ashford and St Peter's Hospital NHS Foundation Trust	1	Ashford and St Peter's Hospitals NHS Foundation trust
		Brighton and Sussex University Hospitals NHS Trust (Princess Royal Hospital Haywards Heath)	1	Princess Royal Hospital
		Brighton and Sussex University Hospitals NHS Trust (Royal Sussex County Hospital)	1	Royal Sussex County Hospital
		Dartford & Gravesham NHS Trust	1	Darent Valley Hospital
		East Kent Hospitals University NHS Foundation Trust (Kent and Canterbury Hospital)	1	Kent and Canterbury Hospital
		East Kent Hospitals University NHS Foundation Trust (Queen Elizabeth The Queen Mother Hospital)	1	Queen Elizabeth the Queen Mother Hospital
		East Kent Hospitals University NHS Foundation Trust (William Harvey Hospital)	1	William Harvey Hospital
		East Sussex Healthcare NHS Trust (Conquest Hospital)	1	Conquest Hospital
		East Sussex Healthcare NHS Trust (Eastbourne District General Hospital)	1	Eastbourne District General Hospital

SHA Cluster/ Country	SHA/Region	Site Name 2012	Number of hospitals included	Hospitals
		Epsom and St Helier University Hospitals NHS Trust (Epsom General Hospital)	1	Epsom General Hospital
		Frimley Park Hospitals NHS Foundation Trust	1	Frimley Park Hospital NHS Trust
		Isle of Wight NHS Trust	1	St Marys Hospital
		Maidstone and Tunbridge Wells NHS Trust (Maidstone Hospital)	1	Maidstone Hospital
		Maidstone and Tunbridge Wells NHS Trust (Tunbridge Wells Hospital)	1	Tunbridge Wells Hospital
		Medway NHS Foundation Trust, Medway PCT and Swale PCT	1	Medway Maritime Hospital
		Royal Surrey County Hospital NHS Foundation Trust	1	Royal Surrey Country Hospital
		Surrey & Sussex Healthcare NHS Trust	1	East Surrey Hospital
		Western Sussex Hospitals NHS Trust (St Richard's Hospital)	1	St Richard's Hospital
		Western Sussex Hospitals NHS Trust (Worthing & Southlands Hospitals NHS Trust)	1	Worthing Hospital
	South West	Dorset County Hospital NHS Foundation Trust	1	Dorset County Hospital NHS Foundation Trust
		Gloucestershire Hospitals NHS Foundation Trust	1	Gloucestershire Royal Hospital
		Great Western Hospitals NHS Foundation Trust	1	The Great Western Hospitals NHS Foundation Trust
		North Bristol NHS Trust	2	Frenchay Hospital Southmead Hospital
		Northern Devon Healthcare NHS Trust in collaboration with North Devon Primary Care Trust	1	North Devon District Hospital
		Plymouth Hospitals NHS Trust in collaboration with Plymouth Community Healthcare	2	Plymouth Hospital NHS Trust Mount Gould Hospital
		Poole Hospital NHS Foundation Trust	1	Poole Hospital NHS Trust
		Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust	1	The Royal Bournemouth & Christchurch Hospitals NHS Foundation Trust
		Royal Cornwall Hospitals NHS Trust	1	Royal Cornwall Hospital Trust
		Royal Devon and Exeter NHS Foundation Trust in collaboration community hospitals under Northern Devon Healthcare NHS Trust	1	Royal Devon & Exeter Hospital
		Royal United Hospital Bath NHS Trust	1	Royal United Hospital, Bath NHS Trust
		Salisbury NHS Foundation Trust	1	Salisbury NHS Foundation Trust
		South Devon Healthcare NHS Foundation Trust and Torbay and Southern Devon Health Care Trust	2	Torbay Hospital Newton Abbot Hospital
		Taunton and Somerset NHS Foundation Trust	1	Taunton and Somerset Foundation Trust
		University Hospitals Bristol NHS Foundation Trust	2	Bristol Royal Infirmary South Bristol Community Hospital
		Weston Area Health NHS Trust	1	Weston General Hospital
		Yeovil District Hospital NHS Foundation Trust	1	Yeovil District Hospital NHS Foundation Trust

Region/ Country	Site Name 2012	Number of hospitals included	Hospitals
Northern Ireland	Belfast Health and Social Care Trust (Mater Hospital)	1	Mater Hospital
	Belfast Health and Social Care Trust (Royal Group of Hospitals and Belfast City Hospital)	2	Royal Group of Hospitals Belfast City hospital
	Northern Health and Social Care Trust (Antrim Area Hospital)	1	Antrim Area Hospital
	Northern Health and Social Care Trust (Causeway)	1	Causeway Hospital
	South Eastern Health and Social Care Trust (Downe Hospital)	1	Downe Hospital
	South Eastern Health and Social Care Trust (Lagan Valley Hospital)	1	Lagan Valley Hospital
	South Eastern Health and Social Care Trust (Ulster Community and Hospitals)	1	Ulster Hospital
	Southern Health and Social Care Trust (Craigavon Area)	1	Craigavon Area Hospital
	Southern Health and Social Care Trust (Daisy Hill Hospital)	1	Daisy Hill Hospital
	Western Health and Social Care Trust (Altnagelvin Hospitals)	1	Altnagelvin Hospital
	Western Health and Social Care Trust (Southern Sector - Erne)	1	South West Area Hospital
Wales	Abertawe Bro Morgannwg University Health Board (Morriston Hospital and Singleton Hospital)	2	Morriston Hospital Singleton Hospital
	Abertawe Bro Morgannwg University Health Board (Princess of Wales Hospital)	1	Princess of Wales Hospital
	Aneurin Bevan Health Board (Nevill Hall Hospital)	1	Nevill Hall Hospital
	Aneurin Bevan Health Board (St Woolos Hospital, Royal Gwent and Caerphilly District Miner's Hospital)	1	Royal Gwent Hospital
	Betsi Cadwaladr University Health Board (Glan Clwyd District General Hospital)	1	Glan Clwyd Hospital
	Betsi Cadwaladr University Health Board (Wrexham Maelor Hospital)	1	Wrexham Maelor
	Betsi Cadwaladr University Health Board (Ysbyty Gwynedd)	1	Ysbyty Gwynedd
	Cardiff and Vale University Health Board (University Hospital Wales)	1	University Hospital Wales
	Cwm Taf Health Board (Prince Charles Hospital)	1	Prince Charles Hospital
	Cwm Taf Health Board (Royal Glamorgan Hospital)	1	Royal Glamorgan Hospital
	Hywel Dda Health Board (Bronglais General Hospital)	1	Bronglais General Hospital
	Hywel Dda Health Board (Prince Philip Hospital)	1	Prince Philip Hospital
	Hywel Dda Health Board (West Wales General Hospital)	1	Glangwili General Hospital
	Hywel Dda Health Board (Withybush General Hospital)	1	Withybush General Hospital
Islands	Isle of Man Department of Health	1	Nobles Hospital
	States of Guernsey Health and Social Services Department	1	Princess Elizabeth Hospital

Appendix 4: ORGANISATIONAL AUDIT SCORING SYSTEM 2012

Domain 1 Acute care organisation			
Domain elements (and relevant questions)	**Question scoring**	**Inclusion/ exclusion criteria**	**Domain score calculation**
Care for all patients in the first 72 hours on a SU: 7 features of (hyper-) acute care: 3.4/3.16; 3.6/3.18; either 3.3(i, ii)/3.15(i, ii) 3.5/3.17; 3.7/3.19; 3.9/3.21	7 features = 4; 5/6 features = 2; < 5 features = 0 0 if have rehab only beds. 0 if no SU.	*This is assessed only on the pre-72 hour beds if they are present or the pre-and post-72 hour beds if not.*	Add scores together (0-8) , divide by 8 and multiply by 100 for 0-100 score
Number of patients thrombolysed across your site from 1 April 2011 – 31 March 2012 (Q1.6) AS A PERCENTAGE OF the total number of patients admitted with stroke between 1 April 2011 – 31 March 2012 (QB6).	If Q1.8 is less than 24/7 = NA <3% = 0.5 3 – <6% =1 6% – <10% = 1.5 10% or more = 2	*Hospitals which do not provide 24/7 on-site thrombolysis are not included in this score*	*Hospitals which do not provide 24/7 on-site thrombolysis add scores together (0-6), divide by 6 and multiply by 100*
Q1.8 and 1.13(d) Level of thrombolysis (days, hours). Represents Total service onsite +/- local arrangements with neighbouring sites.	Q1.8 and Q1.13: thrombolysis is offered weekdays only = 0.5; thrombolysis is offered < 24hrs every day = 1; thrombolysis is offered 24/7 = 2		

Domain 2 Organisation of care			
Stroke patients in other wards than SU? B3 and B4(ii), (iii), (vi), (vii), (viii)	Score 2 if ALL patients either in SU beds (B2) or in CCU (B4i), ITU (B4iv) or HDU (B4v) beds on day of audit. Otherwise score 0. i.e. Score 0 if there is ANY stroke patient on MAU/General assessment wards (B3) or on COE (B4ii), Neurology (B4iii), Generic rehab unit (B4vi) or Other wards (B4vii) or 'unknown' wards.		Add scores together (0-10), and multiply by 10 for 0-100 score.
QA2 and QB1 Ratio of SU beds to the number of people with stroke on the day	Is calculated by dividing the total number of Stroke Unit beds (QA2) by the No. of patients with stroke across the site (QB1): ratio ≥ 1 = 2; 0.75-0.99 = 1; <0.75= 0.5 No SU beds=0		
Q5.1Stroke/neurology specialist early supported discharge multidisciplinary team	Yes+ 4 or more specialities including PT, OT and SALT = 2; Yes+ 3 specialities including PT, OT and SALT = 1; Yes+ specialties NOT including PT, OT and SALT = 0.5; No Team = 0		
Q5.3 Stroke/neurology specialist Community Team for longer term management	Yes+ 4 or more specialities including PT, OT and SALT = 2; Yes+ 3 specialities including PT, OT and SALT = 1; Yes+ specialties NOT including PT, OT and SALT = 0.5; No Team = 0		
Q5.1(c) Waiting times Early Supported Discharge	For ANY one of the therapies (PT, OT, SLT) within 48 hrs = 2; > 48 hrs = 0; No Team = 0		

Domain 3 Specialist roles			
Q3. 5, 3.11, 3.17 Consultant ward rounds	7 days/week = 2; 4-6 days = 1; <4 days = 0; No SU = 0	*If there is more than one type of SU bed the pre-72 hour beds dominate the scoring, then the pre & post 72 hour bed and then post 72 hour beds.* *14 London SUs are removed from the denominator for this element of the score*	Add scores together (0-10) , and multiply by 10 for 0-100 score For London SUs, Add scores together (0-8) , divide by 8 and multiply by 100 for 0-100 score
Q7.4 Band 7 nurse AND at least one band 7 therapist of any discipline	Yes =2 if band 7-8 nurses AND ANY band 7-8 clinical psychologists, dietitian, OT, PT, or SALT; No = 0		
Q4.1 Access within 5 days to Social work expertise, Orthotics, Orthoptics, Podiatry	Yes to all = 1; if not yes to all = 0; No SU=0		
Q4.7 Palliative care patients treated on SU	Yes = 1; No = 0; No SU=0		
Q4.2 Access to clinical psychologists and aspects of care provided	Score separately for inpatients and outpatients: Score 2 if have access to clinical psychologists and ALL of following provided - mood assessment, higher cognitive function assessment, mood treatment, higher cognitive function treatment, non-cognitive behavioural problems assessment and/or treatment. Score 1.5 if have access to clinical psychologists but less than ALL of above aspects of care provided. Score 0 if do not have access to clinical psychologists. Sum together the two scores for inpatients and outpatients out of a total of 4 and divide by 2 for a score 0-2.		
Q7.5(a) and (b) Provision of service which supports stroke patients to remain in, return to or withdraw from work / provision of educational or vocational training	Score 1 if provides service which supports stroke patients to remain in, return to or withdraw from work OR provides educational or vocational training; Score 0 if do not provide either service.		
Q4.4 Patients stay in bed until assessed by physiotherapist	Score 1 if No, score 0 if Yes No SU = 0		

Domain 4 Interdisciplinary services (Stroke Unit)

Q3.8, Q3.12, Q3.20 Sum together nurses usually on duty at 10am weekdays per 10 SU beds

Ratio = Sum of those usually on duty at 10am weekday X10 / Total No. of stroke unit beds (QA2sum)

Score using formula based on 2012 site variation (median & IQR)

Ratios rounded to 2 decimal places before scoring applied. Any WTE of 0.00 has been scored as Zero.

Those with no stroke unit score Zero on this domain. The site variation is based on 189 sites which had a stroke unit

Add the 10 scores together, and multiply by 10 for 0-100 score

i) Qualified nurses

Ratio	0.54-1.54	1.57-1.86	1.87-2.25	2.26+
Score	0.25	0.5	0.75	1

ii) Care assistants

Ratio	0.55-1.145	1.15-1.52	1.53-2.00	2.05+
Score	0.25	0.5	0.75	1

Q4.3 Qualified therapy staff availability (WTE) per 10 SU beds

Ratio = Staff availability (WTE) X10 / Total No. of stroke unit beds (QA2sum)

Score uses formula based on 2012 site variation (median & IQR).

i) Clinical psychology

Ratio	>0-0.11	0.12+
Score	0.75	1

ii) Dietetics

Ratio	0.01-0.112	0.114-0.1725	0.173-0.278	0.28+
Score	0.25	0.5	0.75	1

iii) OT

Ratio	0.27-0.828	0.83-1.087	1.0875-1.364	1.365+
Score	0.25	0.5	0.75	1

iv) Physiotherapy

Ratio	0.37-1.039	1.04-1.311	1.315-1.605	1.61+
Score	0.25	0.5	0.75	1

v) Speech & Language Therapy

Ratio	0.038-0.325	0.33-0.473	0.48-0.70	0.705+
Score	0.25	0.5	0.75	1

vi) Pharmacy

Ratio	0.009-0.07895	0.08-0.1475	0.148-0.25	0.26+
Score	0.25	0.5	0.75	1

Q4.3 6 or 7 day working for occupational therapy, physiotherapy, speech and language therapy.

Score 2 if 6 or 7 day working for at least 2 disciplines;
Score 1 if 6 or 7 day working for 1 discipline;
Score 0 if no 6 or 7 day for any discipline

Domain 5 TIA/neurovascular service			
Q6.3 TIA service can see, investigate & initiate treatment for <u>all</u> high-risk patients within: Q6.4 TIA service can see, investigate & initiate treatment for <u>all</u> low-risk patients within: Q6.2 Usual waiting time to get carotid imaging (high-risk TIA) Q6.2 Usual waiting time to get carotid imaging (low-risk TIA)	Same and next day (7 days a week) = 1; same and next day (5 days a week) = 0.5; > more than next weekday = 0 Within a week = 1; longer than a week = 0 Same and next day (7 days a week) = 1; same and next day (5 days a week) = 0.5; > more than next weekday = 0 Within a week = 1; longer than a week = 0	*If no TIA service is provided onsite, these scores are obtained from the hospital providing this service for the site.* *Q6.3 & Q6.4 can apply to both inpatient and outpatient services. If site has both services then score for which has the BEST times*	Add the four scores together and multiply by 25 for 0-100 score.

Domain 6 Quality improvement training & research			
Q8.1 Report produced for trust board Q8.3 Strategic group responsible for stroke Q8.4 Funding for external courses available for nurse & therapists and number of staff study days funded between April 2011 – March 2012 Q8.10 Clinical research studies	Yes = 1; No = 0 Score each of the following counts: ambulance rep, clinician, patient rep, PCT commissioner, social services, trust board member, stroke network representative and divide by 7 for a 0-1 score Yes and at least 10 study days funded = 1; Yes and 5-9 study days funded = 0.5; No funding or less than 4 study days funded = 0 4 or more = 1; 1-3 studies = 0.5; none = 0		Add these four scores together and multiply by 25 for 0-100 score.

Domain 7 Team meetings			
Q4.6 Formal Team meetings frequency Q4.6(a) Disciplines who regularly attend Q4.6(b) Are all SU inpatients discussed in these meetings	> twice a week = 1; once or twice a week = 0.5; < once a week = 0 Count over the eight disciplines of Q4.6 (a) and divide by 8 for a 0-1 score Yes = 1; No = 0	Those with no stroke unit score Zero on this domain.	Add these three scores together, divide by 3 and multiply by 100 for a 0-100 score.

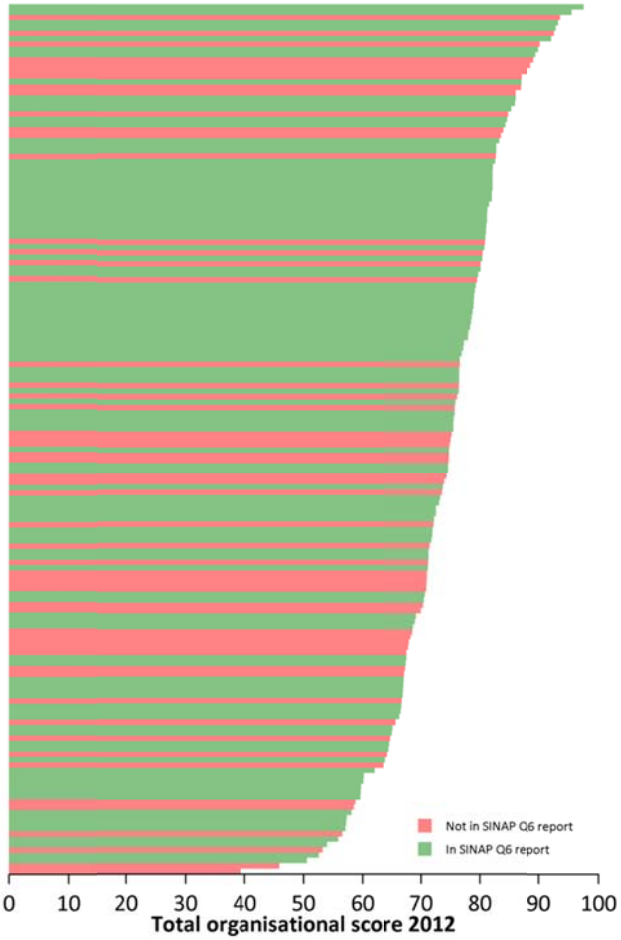
Domain 8 Communication with patients and carers			
Q9.1 Patient access to their management plan	Score as Yes = 1, No = 0 separately for Stroke Unit and for Outpatients. Then add scores and divide by 2 to get 0-1 score		Add the 8 scores together, divide by 8 and multiply by 100 for 0-100 score
Q9.2 For each of the following: Patient version Social services Benefits agency Secondary prevention advice	Score each as Yes = 1, No = 0 separately for Stroke Unit and for Outpatients. Then these 8 scores are added and divided by 8 to give a 0-1 score		
Q9.3 Personalised rehabilitation discharge plan	Yes = 1; No = 0		
Q9.4 Formal links with patients and carers organisations	On ALL of the following: service provision, audit, and service reviews and future plans = 1; On 1 or 2 of the above = 0.5; No links = 0		
Q9.5 Community user group for stroke	Yes = 1; No = 0		
Q9.6 Policy to give patients a named contact on transfer to hospital/community	Yes = 1; No = 0		
Q8.6 Patient/carer views sought on stroke services	Continuous or > 4 times a year = 1; 1-4 times year = 0.5; < once a year = 0		
Q8.7 Report produced within past 12 months which analysed views of patients	Yes = 1; No = 0		

Overall Organisational score 2012 was computed (scale 0-100) as the simple average of the 8 domain scores.

Appendix 5 – Acute organisational audit and SINAP

During 7 rounds of the National Sentinel Stroke Audit, we investigated the relationship between performance in the clinical and organisational audit components. Until the clinical component of SSNAP commences in December 2012, the current source of clinical data is SINAP, the acute stroke audit (www.rcplondon.ac.uk/sinap). SINAP prospectively monitors the quality of stroke care in the first 72 hours in England. As SINAP collects data by individual hospital, rather than site or trust, only 107 sites in the organisational audit are directly comparable with a participating SINAP hospital.

The graphic below shows each site's overall performance in the acute organisational audit colour-coded by whether or not it was included in the sixth quarterly SINAP report. To be included, hospitals had to enter at least 20 locked records for patients admitted between July and September 2012.



The scatterplot below shows the relationship between acute domain score from the organisational audit and SINAP Quarter 6 overall score (based on the average of 12 key indicators for acute stroke care).

For the regression analysis of the SINAP Quarter 6 score and the domain 1 score, the regression coefficient is 0.30 with a 95% CI of 0.18 to 0.42 p<0.001. This means that for every 1% the domain 1 score increases, the average increase in the SINAP Q6 score was 0.30%.