South London
Cardiac and Stroke Network

South West London Stroke Sentinel Audit Results 2010

Analysis of the results of the Royal College of Physicians Stroke Sentinel Clinical Audit 2010 for South West London

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Royal College of Physicians (RCP) Sentinel Audit

Audit cohort: Consecutive admissions between 1st April 2010 and 30th June 2010

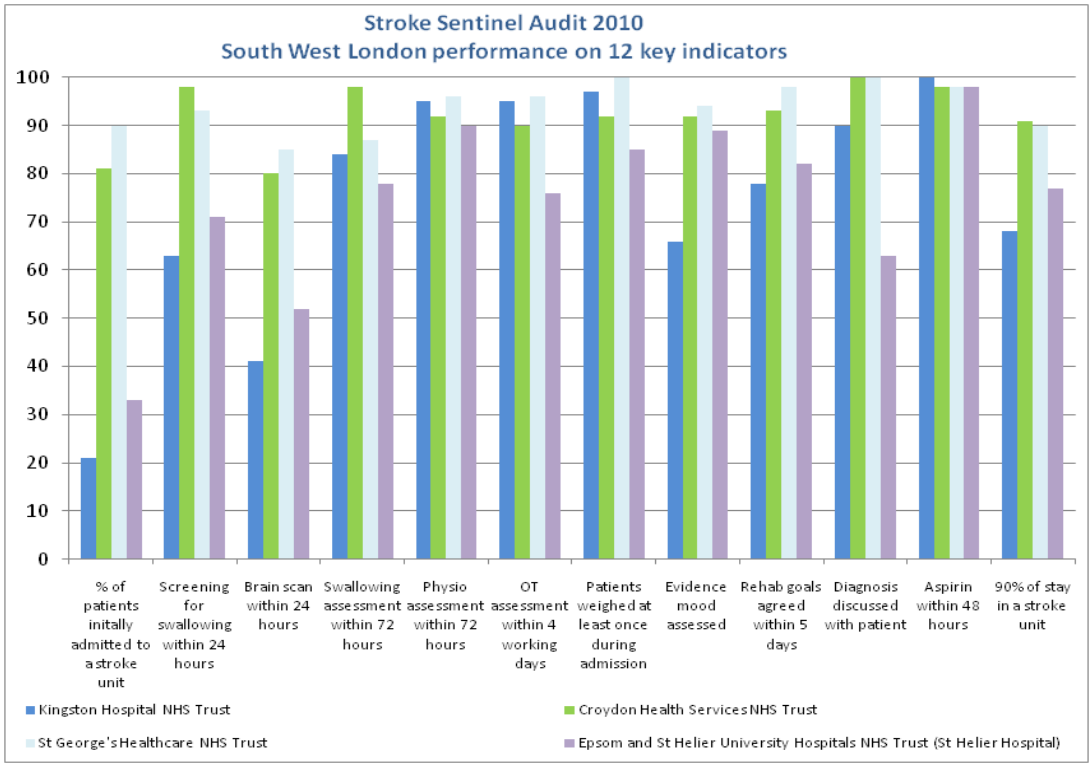
Dissemination process: Trust level reports published 28th February 2011
SHA and network level reports published mid March 2011
Public reports published 12 May 2011

Results

1. Performance against Stroke Sentinel Audit 12 key indicators

The Sentinel Audit identifies 12 key indicators of high quality stroke care which provide a useful high level overview of trust performance. The 12 key indicators are:

- Patients treated for 90 per cent of stay in a stroke unit
- Screening for swallowing disorders within 24 hours of admission
- Brain scan within 24 hours of stroke
- Commenced aspirin within 48 hours of admission
- Physiotherapy assessment within first 72 hours of admission
- Assessment by an occupational therapist within four working days of admission
- Patient weighed at least once during admission
- Mood assessed by discharge
- Swallowing assessment by a speech and language therapist
- Direct admission to a stroke unit
- Discussion with the patient about their diagnosis
- Rehabilitation goals being set by the team within five days of admission



Performance of the South West (SW) London Trusts was found to be variable, particularly on the indicators relating to the early phase of admission (direct

admission to a stroke unit, swallow screening and brain scanning). It is important to note that this audit was undertaken during the final implementation stages of the London stroke model and therefore not all stroke patients were being admitted directly to hyper acute stroke units (HASUs). With full implementation of the London model from July 2011, this practice has changed and the majority of patients are now being directly admitted to a HASU.

Direct admission to a stroke unit

In London, standards for both direct admissions and time spent on a stroke unit are monitored closely. For the latter, 95 per cent of patients should spend all their time on a stroke unit. Not all Trusts achieve this and although performance is impacted on by bed pressures, all SW London Trusts have passed their assessments to date. This means that performance has remained consistently above 75 per cent (the minimum possible score given tolerances built into the assessment process) and in some cases is often significantly higher.

Brain scanning

Both St Helier Hospital and Kingston Hospital scored comparatively poorly on brain scanning. At Kingston, this can be attributed to limited scanner access and capacity. Since that time, performance has increased from 41 per cent to 80-90 per cent.

At St Helier, closer examination of the data indicates that a high proportion of patients during this period were not admitted within 24 hours of onset of symptoms (12 of the 20 patients not being scanned in 24 hours). However, 92 per cent of stroke patients during this period were scanned within 24 hours of admission. This is higher than the national average of 84 per cent.

Assessment of mood

Kingston Hospital in particular scored poorly on assessment of mood. However, they were assessed against the London A2 standards in September 2010 and scored full marks for mood assessment (based on the audit of 10 sets of notes), suggesting that performance has improved since the Sentinel Audit took place. This will be reviewed at future assessments and data is now captured through the London Minimum Dataset (LMDS) process, which is more comprehensive as it captures performance data for each patient treated.

Other points of note

- Croydon should be commended for their high scores on the 12 key indicators, which demonstrate significant improvements when compared with the 2008 audit (see Appendix B for comparison by Trust).

- It is good to note that all Trusts in South West London scored well on physiotherapy assessments and on prescribing aspirin, with scores at 90 per cent or above for all sites.

- St Helier Hospital scored poorly for discussion of diagnosis with the patient, and review of this by the Trust has indicated that while these discussions were taking place, they were not being documented. This has now been addressed.

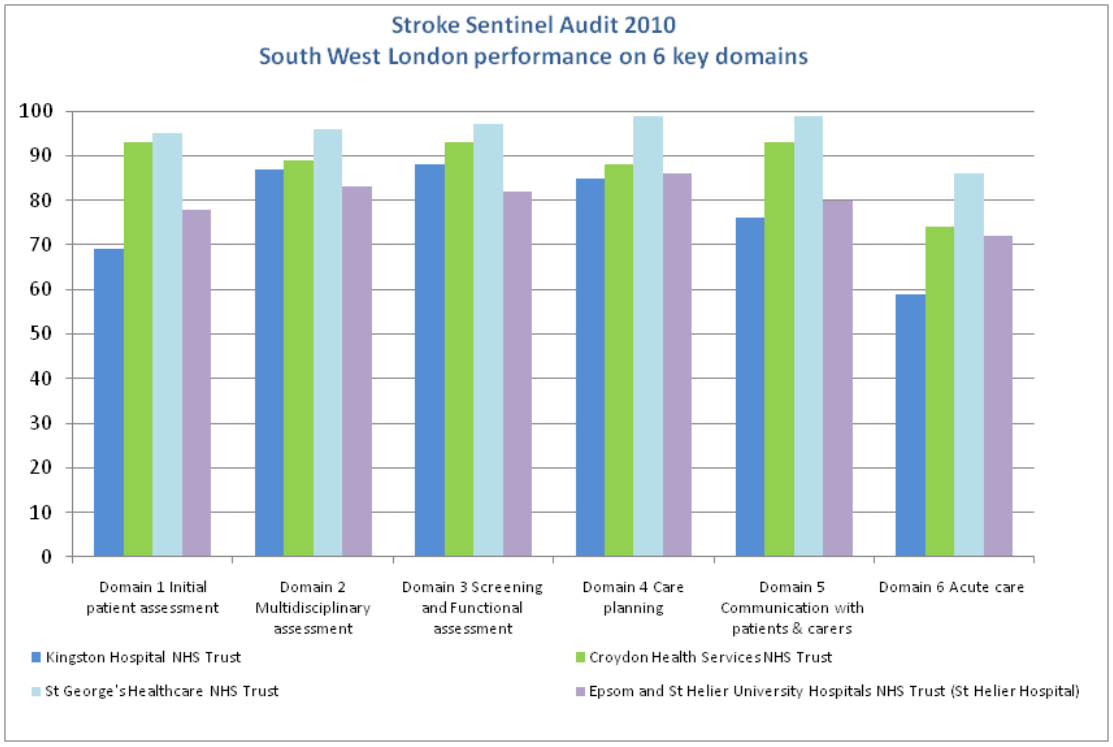
- Staffing gaps and recruitment delays at St Helier Hospital during the audit period impacted on performance on swallow assessments, weighing patients and mood assessments. These issues have now been resolved and the Trust passed their A2 Stroke Unit assessment in February 2011, at which point performance was reviewed for Quarter 3 of FY2010/11 on relevant measures.

2. Performance on Stroke Sentinel Audit: Six domains of care

Performance is summarised into six domains of care in the Sentinel Audit, which are used to calculate an overall process score:

- Initial patient assessment
- Multidisciplinary assessment
- Screening and functional assessment
- Care planning
- Communication with patients and carers
- Acute care

Appendix A describes the indicators used in each domain and calculation of overall process score.



Kingston and St Helier hospitals scored lower on Domain 5 (Communication with patients and carers). As noted, issues around documentation have been reviewed and addressed at St Helier Hospital, and both Trusts should seek to monitor discussions and documentation.

Variable performance on Initial patient assessment and Acute care (domains 1 and 6) is likely to reflect the partial implementation of the London stroke model and associated logistical and staffing challenges present at the time of the audit.

3. Therapy provision

The NICE quality standards for stroke state that all patients, where they can tolerate it, should receive at least 45 minutes of each of the relevant therapies for five days a week at minimum. This was reviewed for the first time in the Sentinel Audit 2010.

Figure 1
Average daily amount of therapy provided on weekdays during first 28 days

Physiotherapy Provided on applicable days	**National** (% and N)	**SGH** (%)	**SHH** (%)	**CUH** (%)	**KH** (%)
45 min and above	32% (2379)	53%	NA	24%	NA
40-44 min	5% (373)	0%		9%	
20-39 min	30% (2179)	12%		32%	
Less than 20 min	33% (2413)	35%		35%	
Occupational therapy Provided on applicable days					
45 min and above	31% (2220)	49%	NA	18%	NA
40-44 min	4% (266)	2%		9%	
20-39 min	23% (1622)	16%		50%	
Less than 20 min	42% (3025)	33%		24%	
Speech and language therapy Provided on applicable days					
45 min and above	18% (980)	21%	NA	3%	NA
40-44 min	2% (120)	3%		3%	
20-39 min	16% (898)	13%		26%	
Less than 20 min	64% (3470)	63%		69%	

Figure 2
Median number of days patients deemed by clinician to be appropriate for 45 minutes of therapy

Number of weekdays 45 min was appropriate*	**National median (IQR) in days**	**SGH (median in days)**	**SHH (median in days)**	**CUH (median in days)**	**KH (median in days)**
Physiotherapy	2 (0-7)	2	NA	7	3
Occupational therapy	2 (0-6)	2		5	3
Speech and language therapy	1 (0-3)	0		0	2

*Patients with impairment and known days

Figure 3
Percentage of inpatient weekdays up to 28 days stay that therapy was appropriate

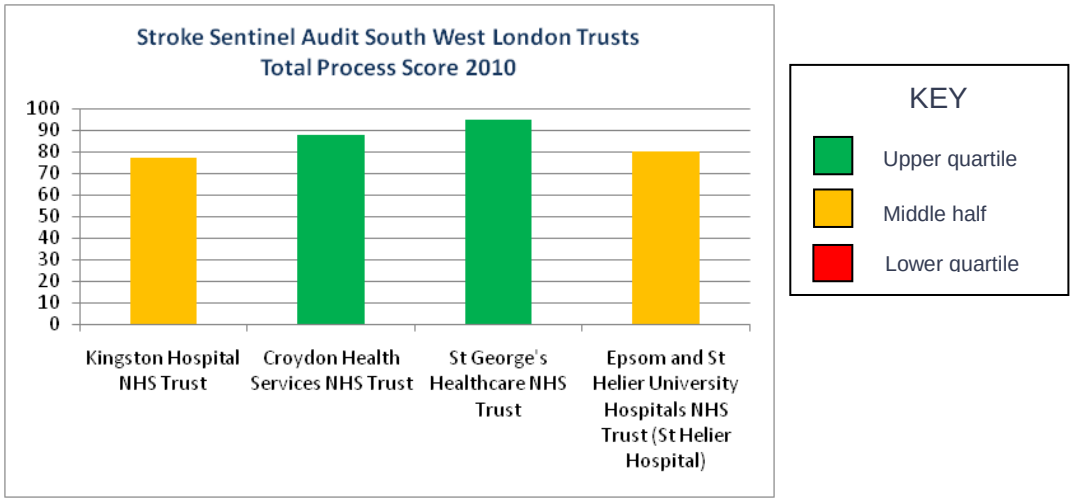
Percentage of inpatient weekdays up to 28 days of stay that therapy was appropriate	National Median (IQR)	SGH (%)	SHH (%)	CUH (%)	KH (%)
Physiotherapy	43% (0-80)	33%	NA	56%	74%
Occupational therapy	33% (0-73)	40%		43%	71%
Speech and language therapy	5% (0-45)	0%		0%	36%

The national data suggests that patients are not receiving enough face to face therapy. The sentinel report suggests that "there are two issues arising. Firstly, patients are deemed capable of tolerating 45 minutes of each therapy per day on only a small proportion of their in-hospital stay, which suggests that our therapists underestimate their patient's ability to participate in therapy. Secondly, even when the patients are deemed suitable for 45 minutes they often do not receive this amount – about a third for physiotherapy and occupational therapy and only 18 per cent for speech and language therapy. A major review of therapy working practices is needed."

In SW London the data quality is variable and, where available, suggests that therapy provision varies significantly both between organisations and professions. The SW London stroke rehabilitation workstream will review the findings of the report and develop appropriate action plans to monitor this on an ongoing basis and address gaps in service provision.

4. Performance on Stroke Sentinel Audit total process score

Each organisation receives a total process score, calculated from scores on each of the six core domains. Organisations are ranked and rated according to the quartile correlating to their score. RAG ratings have been added by the Network team to demonstrate variability in performance across the Network area.



5. Comparison of 2006, 2008 and 2010 overall process scores

	Overall position 2006	Overall position 2008	Overall position 2010
Epsom and St Helier University Hospitals NHS Trust (St Helier)	Middle half	Upper quartile	Middle half
Kingston Hospital NHS Trust	Middle half	Upper quartile	Middle half
Mayday Healthcare NHS Trust*	Middle half	Middle half	Upper quartile
St George's Healthcare NHS Trust	Upper quartile	Upper quartile	Upper quartile

*This Trust is now known as 'Croydon Health Services'; the hospital as 'Croydon University Hospital'.

Conclusions and recommendations

Overall performance

- In Croydon there have been significant improvements in performance against each indicator. All scores were at or above 90 per cent apart from the score for brain scanning
- St George's Hospital scored well on all indicators with all scores, apart from brain scanning, at or above 90 per cent. However, performance against this standard was evidenced at 98 per cent in Quarter 4 of FY2010/11 at their most recent HASU assessment on 21st April 2011.
- At other Trusts in SW London some areas for improvement were identified and progress against these will be monitored through the SU accreditation assessment process and in the acute workstream.

Vital Signs

- Significant improvements in performance were noted against the 90 per cent stay on a stroke unit indicator when compared with the previous audit. Some variation across the sector still remained.
- This continues to be monitored nationally as an Integrated Performance Measure, and the ongoing assessment process. LMDS monitoring will provide a more detailed local picture.

Scanning

- Performance on timely brain scanning was variable, and in some cases had worsened since the 2008 audit. However, brain scanning now predominantly takes place in HASUs for all patients, apart from the minority who are admitted directly to DGHs (this being monitored on a monthly basis). In some Trusts capacity issues and late presentation following stroke are indicated as challenges.

- Timely scanning is monitored nationally through the Stroke Improvement National Audit Programme (SINAP) and the Accelerated Stroke Improvement (ASI) metrics. The Network reviews this data through the assessment process.
- Data on timely brain scanning for patients who do not get admitted to a HASU is captured on SINAP. However, not all Trusts are currently entering the data for direct admissions. The Network is monitoring this and working with Trusts to improve data completeness.

Therapies

- Some local Trust data mirrors the national trends with regard to provision of therapies to inpatients and significant variation can be noted between organisations and between professions.
- This data is currently not being captured on an ongoing basis in SW London, though we understand this is happening in other areas of London. This issue will be addressed in future acute and rehabilitation workstream discussions. Action plans will be developed to align with work being done elsewhere in London.

Future audit and performance monitoring of acute stroke services

Indications are that the Sentinel Audit in its current form will not continue. The RCP Intercollegiate Stroke Working Party (ICSWP) and the Stroke Improvement Programme (SIP) are leading the development of a single stroke minimum data set intended to replace all other forms of data collection. The data set is expected to include most of the components of the NICE stroke quality standards, the current ASI measures, SINAP and key items previously measured in the Sentinel Audit. The data set is currently being developed through the ICSWP and the stroke data and audit national steering group. It is to be piloted in April 2012.

- In London, Trusts are continuing through the accreditation process with six monthly assessments of performance. The LMDS for stroke has been launched, which provides a wealth of information about acute Trust performance for stroke. It is shared with the networks and commissioners.
- Ongoing discussions at the Pan-London Cardiac and Stroke Network Board and the London Stroke Clinical Advisory Group are focusing on approaches to ensure high quality stroke care is maintained once all units are fully accredited.

Appendix A

How the domains and total scores are derived

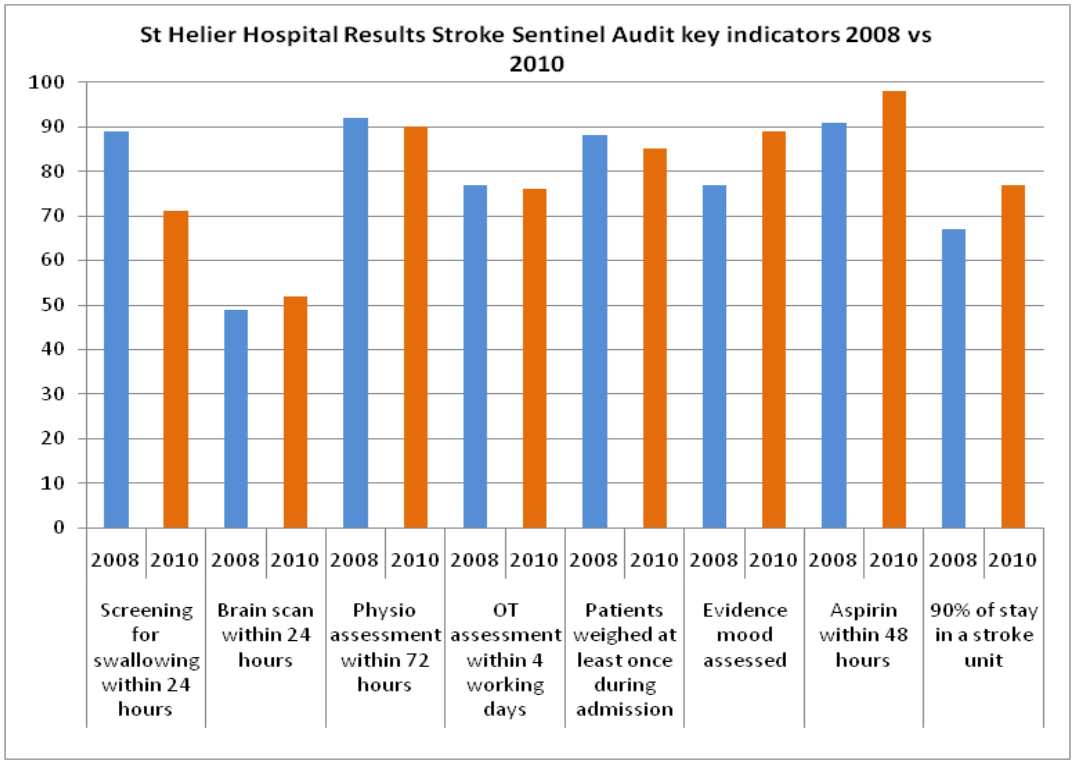
D1	Initial patient assessment (average of four standards) • Screening for swallowing 24 hours (Q3.3) • Visual fields (Q3.1i) • Sensory testing (Q3.1ii) • Brain scan within 24 hours of stroke (Q1.14iv)
D2	Multidisciplinary assessment (average of five) • Swallowing assessment by a speech and language therapist within 72 hours (Q3.5) • Physiotherapy assessment within 72 hours (Q3.6) • Initial assessment of communication seven days (Q4.1) • Occupational therapy assessment within four working days (Q4.2) • Social work assessment within seven days of referral (Q5.2)
D3	Screening and functional assessment (average of four) • Patient weighed at least once during admission (Q5.1) • Evidence mood assessed (Q5.3) • Cognitive status assessed (Q5.4) • Screening for malnutrition (Q3.9)
D4	Care planning (average of three) • Evidence of rehabilitation goals (Q4.5i) • Plan to promote urinary continence (Q4.4) • Receiving nutrition within 72 hours (Q3.8)
D5	Communication with patients and carers (average of 5) • Discussion with patient about diagnosis (Q7.1i) • Carer needs for support assessed separately (Q7.3) • Skills taught to care for patient at home (Q7.4) • Follow up appointment at six weeks (Q7.7) • Driving advice (Q7.2)
D6	Acute care (average of five) • Aspirin within 48 hours of stroke (Q3.4) • 90 per cent of stay in a stroke unit (calculated) • Admitted to an acute or combined stroke unit within four hours (Q1.10) • Receiving fluids within 24 hours (Q3.7) • Receiving thrombolysis, if eligible under NINDS (calculated from 3.2 and others)
Total process score	(D1+D2+D3+D4+D5+D6)/6

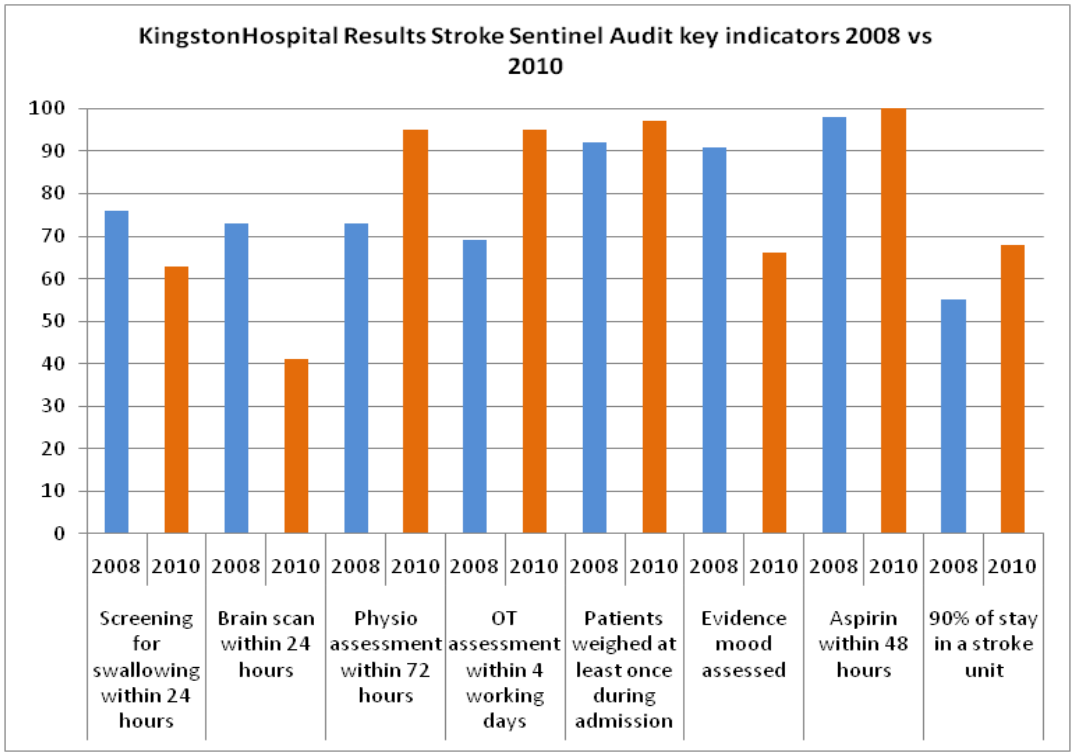
Appendix B

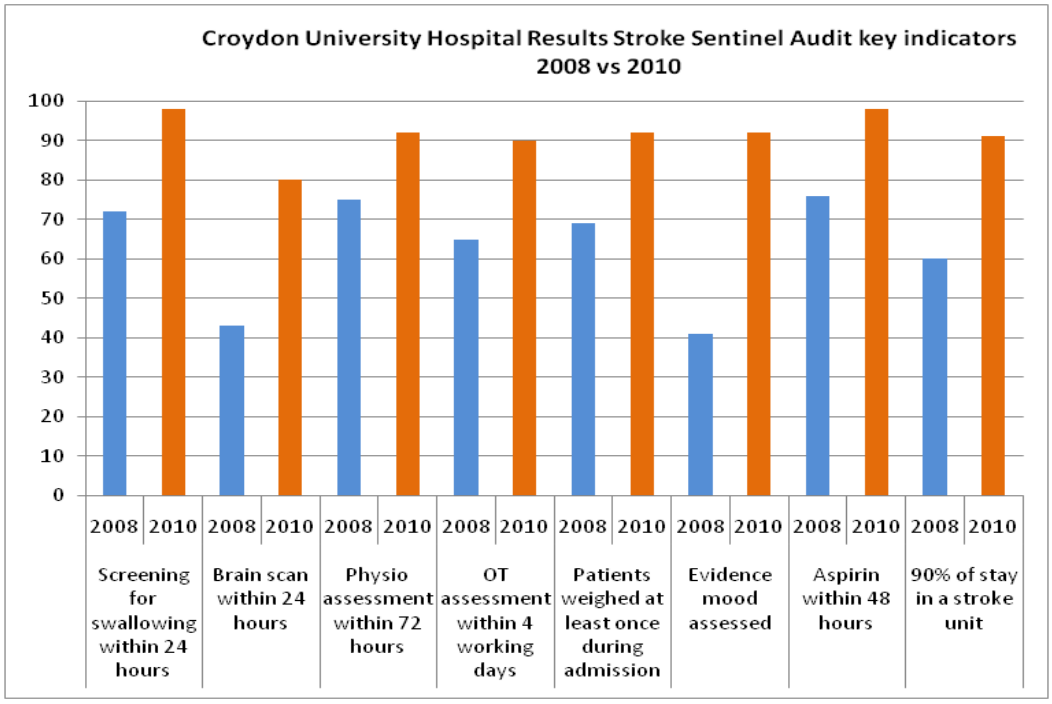
Comparison of 2008 and 2010 key indicator results

Performance against the key indicators used in the 2008 and 2010 Sentinel Audits gives an indication as to the direction of travel for these services.

NB The indicator for rehabilitation goals has been excluded as this has been amended since 2008.




KingstonHospital Results Stroke Sentinel Audit key indicators 2008 vs 2010
100
90
80
70
60
50
40
30
20
10
0
2008 2010
Screening for swallowing within 24 hours
Brain scan within 24 hours
Physio assessment within 72 hours
OT assessment within 4 working days
Patients weighed at least once during admission
Evidence mood assessed
Aspirin within 48 hours
90% of stay in a stroke unit


Croydon University Hospital Results Stroke Sentinel Audit key indicators 2008 vs 2010
100
90
80
70
60
50
40
30
20
10
0
2008 2010
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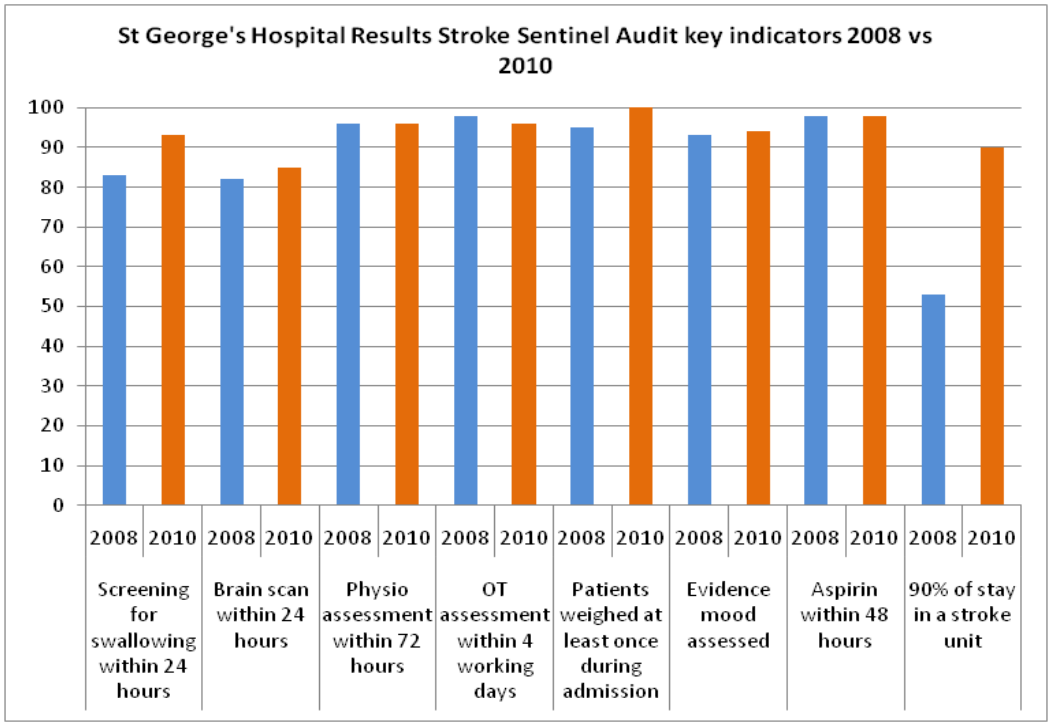
St George's Hospital Results Stroke Sentinel Audit key indicators 2008 vs 2010
100
90
80
70
60
50
40
30
20
10
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2008
2010
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