NHS National Services Scotland

Scottish Stroke Care Audit

National Report on Stroke Services in Scottish Hospitals

Data relating to 2005 -2007

Executive Summary

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یہ طبع مختلف زبانوں اور بڑے چھاپ میں دستیاب کی جاسکتی ہے، برائلی (صرف انگریزی میں)- اپنی کمیونٹی کے زبان میںاس طبع کے ترجمے کے بارے میں معلومات حاصل کرنے کے لئے، براہ کرم مندرجہ ذیل نمبر پر فون کیجئے -

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Introduction

There is strong evidence that well organised stroke care improves the outcome of patients having a stroke. In Scotland, SIGN and NHSQIS have developed guidelines and standards aimed at delivering that care. The Scottish Stroke Care Audit monitors the quality of care provided by the hospitals in all NHS Boards by collating data collected by the Managed Clinical Networks (MCNs). These data are used by the Scottish Government Health Department to monitor progress against the NHSQIS standards for stroke and its CHD & Stroke Strategy.

NHS Boards are expected to identify aspects of their stroke services which do not meet National Standards and to work with their stroke MCNs to improve their performance. This latest National Report includes data describing the quality of stroke care in each acute hospital grouped by NHS Board from 2005 to 2007. This allows each hospital and NHS Board not only to compare their performance with national standards, but also with other organisations. Hospitals with less satisfactory performance can hopefully learn from those where services are of higher quality. This year the report also includes data on the performance of our services with respect to delivery of prompt access to high quality carotid interventions which are potentially useful in reducing the risk of stroke in selected patients. The main report has been circulated widely and is available online (http://www.strokeaudit.scot.nhs.uk/).

This Executive Summary aims to provide a very brief overview of the results of the audit. We have tabulated the main results for Scotland overall and for each hospital grouped by NHS Board. We have also shown 2005 performance in brackets after the 2007 data, 2007(2005), to indicate whether performance is improving, stagnant or deteriorating.

We have colour coded the summary results to emphasise where services:

Green Meet or exceed National Standards

Red Do not meet National Standards but are no worse in 2007 than 2005. This also includes centres which have data for only 2007, as having data is an improvement over no data being collected.

Black Do not meet National Standards and are performing worse in 2007 than in 2005 or are failing to provide data (n/a).

Five key quality indicators are:

Proportion of stroke patients admitted to a Stroke Unit within 1 day of admission to hospital. Stroke unit care is associated with reduced risk of dying and disability after a stroke. The NHSQIS standard is that at least 70% of patients should be admitted to a stroke unit within a day of admission.

Proportion having a documented Swallow screen on day of admission. About half of all stroke patients will not be able to swallow safely on admission to hospital. If given fluids or food inappropriately patients may develop, and possibly die from, pneumonia and if not treated appropriately they may become dehydrated and malnourished which may lead to slowed recovery and/or worse outcome. The NHSQIS standard is that all patients should have a swallow screen within a day of admission.

Proportion having a brain scan within 2 days of admission. A brain scan is essential to confirm the diagnosis of stroke and to distinguish stroke due to ischaemia (a blocked blood vessel) or a haemorrhage (burst blood vessel). Treatments for a blocked blood vessel are very dangerous to those with a burst blood vessel. The NHSQIS standard is that at least 80% should have a brain scan within 2 days of admission.

Proportion of patients with ischaemic stroke who receive aspirin within 2 days of admission. Aspirin given within the first 2 days reduces the proportion of patients having recurrent strokes and residual disability. The NHSQIS standard is that all patients should receive aspirin within 2 days unless contraindicated.

Proportion of patients with a mini stroke (transient ischaemic attack), who do not need immediate admission, assessed in a specialist neurovascular clinic within 14 and 7 days of receipt of referral. The risk of a stroke within the first week is at least 10%. Appropriate treatment can halve this risk but only if started very early. The NHSQIS standard is that 80% should be seen within 14 days and ideally within 7 days.

Understanding the Performance indicators

Good or bad performance with respect to these five indicators, and the many others available in the main report, will usually reflect the actual performance of the service. However, if the audit methodology is not strictly adhered to, the local data may be misleading – most likely they will give a reassuringly good measure of performance. For instance, if the audit does not include patients managed out with the stroke unit an overly optimistic view of the quality of the service will result. In the long run this will harm patients.

Complete data for patients is not available till after their hospital discharge. Therefore, it is almost impossible to have complete data which reflects performance for patients admitted within the last few months. The audit is inevitably at least 6 months out of date.

For some indicators the NHSQIS standard (swallow screen and aspirin) is virtually impossible to meet (**Green**) since it requires ALL patients to receive the specified care. In these cases it is important to look for year on year improvement towards the standard.

NHSQIS Standards, Summary Table

Green Meet or exceed National Standards

Red Do not meet National Standards but are no worse in 2007 than 2005. This also includes centres which have data for only 2007, as having data is an improvement over no data being collected.

Black Do not meet National Standards and are performing worse in 2007 than in 2005 or are failing to provide data (n/a).

The Figures presented are data from 2007 with data from 2005 where available in parentheses.

Hospital	Admitted to SU <= 1 day	Swallow <= 0 day %	Brain scan <= 2 days %	Aspirin <= 2 days %	NV clinic <= 7 days %	NV clinic <= 14 days %
NHSQIS Standard	70	100	80	100	80	80
2007 Scotland – wide	56 (51)	51 (44)	87 (79)	66 (57)	47 (30)	69 (57)
Aberdeen Royal Infirmary	72 (54)	46 (24)	81 (61)	67 (69)	56 (16)	81 (33)
Dr Grays, Elgin	35	n/a	81	n/a	n/a	n/a
Ninewells Hospital	59 (51)	50 (28)	86 (83)	57 (47)	n/a	n/a
Perth Royal Infirmary	5 (5)	33 (39)	78 (80)	50 (41)	50 (39)	93 (70)
Stracathro Hospital	NR*	NR*	NR*	NR*	84 (84)	98 (97)
Royal Infirmary Edinburgh	41 (38)	38 (33)	88 (82)	60 (53)	NR	NR
St Johns Hospital (Livingston)	38 (18)	73 (48)	87 (83)	67 (67)	3 (15)	13 (45)
Western General Hospital	69 (62)	55 (29)	94 (91)	76 (70)	88 (17)	96 (58)
Glasgow Royal Infirmary	49 (58)	53 (77)	92 (61)	86 (43)	3	20
Stobhill Hospital	26 (51)	49 (46)	98 (78)	94 (60)	30	59
Western Infirmary Glasgow	90 (81)	62 (83)	98 (95)	90 (68)	5	11
Southern General Hospital	78 (75)	68 (63)	94 (94)	78 (77)	25	66
Victoria Infirmary Glasgow	NR*	NR*	NR*	NR*	85	96
Inverclyde Royal Hospital	38 (52)	61 (25)	90 (86)	69 (63)	14 (27)	20 (37)
Royal Alexandra Hospital	58 (46)	n/a	83 (73)	50 (27)	77 (83)	89 (97)
Vale of Leven (Dumbarton)	30 (47)	n/a	87 (79)	62 (45)	NR	NR

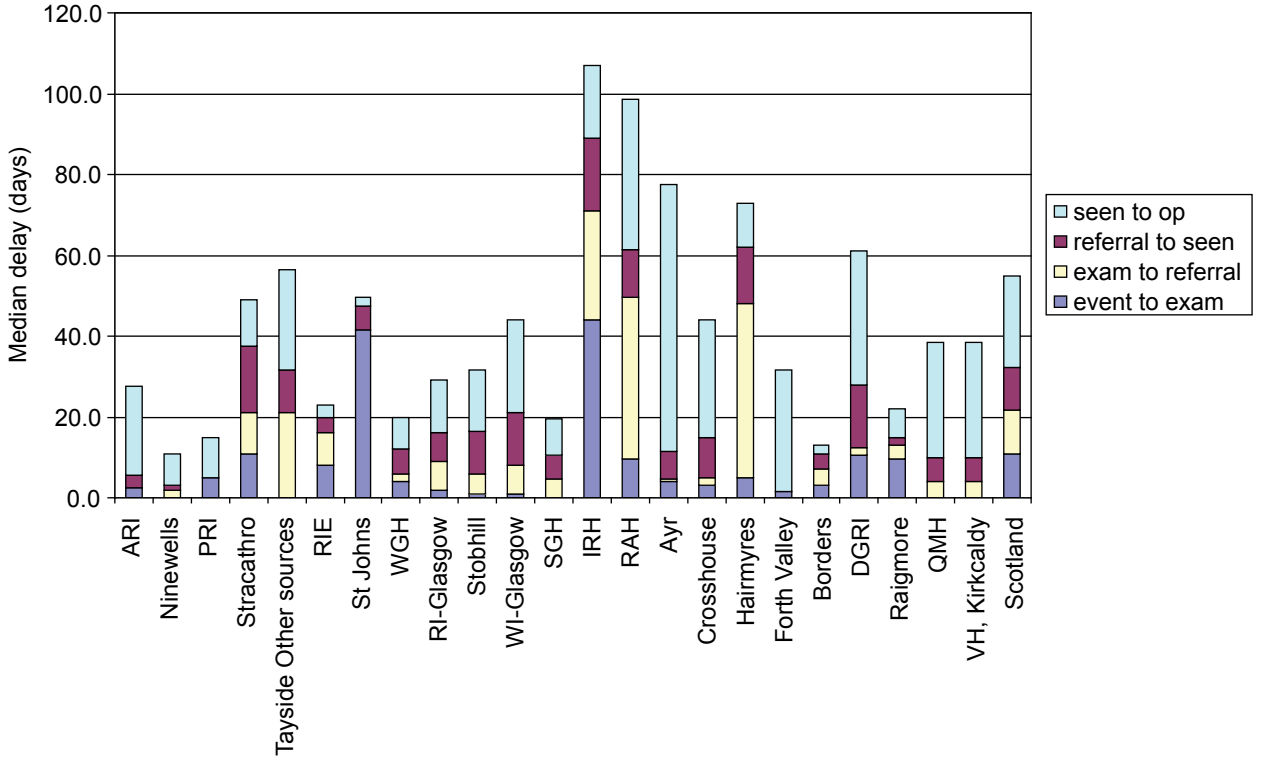
Hospital	Admitted to SU <= 1 day	Swallow <= 0 day %	Brain scan <= 2 days %	Aspirin <= 2 days %	NV clinic <= 7 days %	NV clinic <= 14 days %
Ayr Hospital	74 (74)	65 (60)	86 (76)	58 (32)	39 (7)	73 (21)
Crosshouse Hospital	62 (54)	71 (85)	84 (70)	68 (50)	74 (17)	95 (54)
Hairmyres Hospital	59 (64)	46 (49)	83 (90)	63 (67)	30 (10)	63 (27)
Monklands Hospital	73 (73)	31 (27)	73 (66)	66 (55)	70	96
Wishaw General Hospital	50 (51)	48 (70)	88 (85)	78 (68)	91 (72)	98 (92)
Forth Valley Hospital	47 (18)	72 (55)	89 (79)	68 (63)	9	18
Borders General Hospital	63 (79)	58 (65)	91 (90)	71 (67)	56	96
Dumfries & Galloway Royal Infirmary	71 (41)	69 (67)	84 (81)	69 (62)	52 (29)	86 (74)
Raigmore Hospital	38 (14)	36 (20)	83 (51)	53 (45)	20 (39)	55 (75)
Lorn & Islands (Oban)	70	48	76	65	77 (77)	95 (93)
Belford Hospital (Fort William)	0	89	79	50	NR	NR
Caithness Hospital	0	50	13	53	NR	NR
Queen Margaret Hospital	45 (43)	32 (27)	80 (72)	55 (48)	11 (18)	50 (58)
Victoria Hospital, Kirkcaldy	38 (18)	23 (29)	86 (75)	51 (47)	14 (2)	31 (21)
Orkney	50 (24)	42 (20)	50 (36)	72 (61)	NR	NR
Shetland	0	n/a	38 (4)	46 (57)	NR	NR
Western Isles	36 (39)	42 (16)	73 (55)	57 (53)	NR	NR

n/a = not available (hospital does not collect or has not reported the data)
NR = not relevant (usually because service does not exist)
NR* = Inpatient rehab service only, recorded as part of the local acute hospital service

Carotid Surgery

Evidence from large randomised trials has shown that selected patients with a recent carotid territory TIA or minor ischaemic stroke, who have a moderate to severe narrowing of the carotid artery on the affected side of the brain (or eye), benefit from a carotid endarterectomy. Moreover, the benefits of surgery are far greater if it can be performed in the first couple of weeks after the most recent TIAs. There is very little if no benefit from operating on patients more than 12 weeks after their most recent event.

The Scotland wide data reflecting the performance with respect to carotid surgery show that between 400 and 500 patients have carotid surgery each year. The mean delay between the last event and surgery is 52 days with only 37% have their surgery within 30 days of their last event. These long delays are clearly reducing the benefits that patients are deriving from their surgery and reduce the cost effectiveness of the intervention. The figure below shows the overall delays in each hospital and where the delays are occurring in the pathway. The pathway often involves referral from a neurovascular clinic in a District General Hospital to a specialist vascular surgeon elsewhere.



Measures to Improve Performance

At a National Meeting in June 08 clinicians, MCN managers and audit staff shared their experiences of changing services to improve performance. Some of the changes are listed below and are described in more detail in the main report.

Increasing the proportion of stroke patients admitted to a Stroke Unit within 1 day of admission to hospital.

- Reorganizing patient pathway so that identified strokes are admitted directly to the stroke unit
- Stroke team visiting acute assessment area to assess patients and divert them to stroke unit
- Ensuring adequate numbers of stroke unit beds
- Closer working with bed management – ensuring that the bed managers are aware of the NHSQIS standard
- Ring fencing stroke unit beds
- Clinicians actively involved in managing capacity on the stroke unit
- Cooperation between hospitals in same area to ensure all stroke unit capacity is used optimally.

Increasing the proportion having a documented Swallow screen on day of admission.

- Direct admission to stroke unit where staff are trained to assess swallowing
- Training of nursing staff in the stroke unit, in medical assessment and in other wards
- Using a protocol and integrated care pathway to document assessment – the problem is that the screen is sometimes done but not recorded clearly

Increasing the proportion having a brain scan within 2 days of admission.

- Direct admission to stroke unit
- Protocol for scanning developed jointly with radiology
- Appropriate priority given to stroke patients
- Scanning available at weekends
- No need for routine immediate reporting by radiologist out of hours
- Introduction of electronic transmission of scans and reports, improving availability and permitting remote interpretation

Increasing the proportion of patients with ischaemic stroke who receive aspirin within 2 days of admission.

- Direct admission to stroke unit
- Early brain scanning
- Protocol or integrated care pathway
- Nurse prescribed aspirin

Increasing the proportion of patients with a mini stroke (transient ischaemic attack), who do not need immediate admission, assessed in a specialist neurovascular within 14 and 7 days of receipt of referral.

- Public campaign to make people more aware of the importance of transient neurological symptoms
- TIA hotlines for GPs, and out of hours services to obtain specialist input and an early hospital appointment
- More flexible clinics allowing patients to be seen at almost any time rather than during restricted periods
- Electronic referrals via SCI Gateway
- Filtering patients to prioritize those at highest risk of early strokes e.g. using the ABCD2 score
- Area wide planning for neurovascular clinics to allow staff to cross cover each others leave periods.

Reducing the delays for patients receiving carotid surgery

- Joint clinics between surgeons and stroke physicians
- Agreed assessment protocols so that patients are fully assessed prior to referral
- Telephone and faxed referrals where split site working occurs
- Involvement of sufficient numbers of surgeons to ensure adequate capacity is maintained even during leave periods
- Appropriate prioritisation of carotid surgery – surgeons need to agree with those responsible for waiting lists that carotid surgery is clinically more urgent than some other operations even when waiting time targets may be breached.

Conclusions

The introduction of the Stroke Strategy has been associated with significant improvement in stroke services across Scotland. However, the quality of stroke services varies greatly across Scotland. Further action is required in most NHS Boards since areas of poor performance are likely to be reflected in worse outcomes (more deaths and more disability) for their patients. In addition, poor care leads to longer lengths of hospital stay, greater residual dependency and thus higher costs to health services. No hospital meets all the NHSQIS standards, so all need to strive to improve their stroke services.

The “refreshed” stroke strategy which will be published in Autumn 2008 will highlight the many additional aspects of stroke services which need to be developed. Revised and more challenging NHSQIS standards which reflect the latest evidence included in latest stroke SIGN guidelines will be published at the end of 2008. NHS Boards will need to take account of these in their planning.

NHS National Services Scotland

Contacts

Any questions about SSCA should be referred to the Co-ordinating Centre. Please refer questions on this report to Robin Flaig. Please refer questions on the SSCA system to Mike McDowall. For general questions about the Audit please contact Martin Dennis, Chair of the National Advisory Committee for Stroke.

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