



SINAP

STROKE IMPROVEMENT NATIONAL AUDIT PROGRAMME

Proforma

Clinical Standards, Royal College of Physicians, London.

On behalf of the Intercollegiate Stroke Working Party.

Introduction

Major changes to the way that acute stroke care is delivered are taking place in many parts of country following the publication of the Department of Health's National Stroke Strategy and the NHS Next Stage Review proposals. The National Sentinel Audit of Stroke has proved useful in providing information that clinicians, managers and commissioners have been able to use to improve their services. However it is retrospective data and is currently only collected every two years.

The Stroke Programme at the Royal College of Physicians has now conducted 6 rounds of the National Sentinel Stroke Audit since 1998, and demonstrated that although there were widespread variations in standards across the country, much was being done at local level to change services. The provision of services in the hyperacute area has been highlighted as an area where a more detailed audit is required. This will cover the first 72 hours of admission and all hospitals which admit acute stroke patients have been invited to participate.

The Myocardial Ischaemia National Audit Project (MINAP) collects prospective continuous data for patients with acute coronary syndrome and these data have proved to be of enormous value in addressing the problems of delivering high quality acute coronary care. We are therefore launching a similar audit for stroke, concentrating on the first three days of care. We are aiming to keep the dataset small and manageable as there will not be additional resources to collect the data. We believe that if the information that is provided is useful then the additional effort will be worthwhile.

Aims:

- To describe the pathway followed by patients with acute stroke (in the first three days) in hospitals
- To assess the quality of care provided to acute stroke patients during the first three days of care
- To identify the major areas where services need to be improved for acute stroke patients

Objectives:

- To identify all stroke patients admitted to hospital and to document:
 - how patients are admitted;
 - how they are evaluated and by whom;
 - what investigations they have;
 - what immediate treatment they receive; and
 - how they are managed during the first 72 hours after admission.
- To produce a dataset that can be completed without major additional resources at a local level on all stroke admissions, with the data being entered onto the system in real-time
- To provide a system that enables local clinicians to be able to continuously assess their performance benchmarked against national performance
- To enable a summary of the first 3 days of care to be produced from the submitted data for use by clinicians and patients.

Inclusion Criteria for the audit

- All patients who elicit a response from the stroke team – although most questions should only be answered for patients diagnosed with stroke (acute ischaemic stroke or primary intracerebral haemorrhage)

Exclusion Criteria

- Subarachnoid haemorrhage (I60)
- Subdural and extradural haematoma (I62)
- Patients admitted more than 72 hours after the onset of the stroke

The Audit Questions

The audit questions have been refined following meetings of a subgroup of the Intercollegiate Stroke Working Party and are linked to the *National Clinical Guidelines for Stroke*, NICE guidelines and current best evidence.

The Audit Web Tool

The audit web tool has been developed by CCAD (Central Cardiac Audit Database). The web tool has been piloted and changes have been made based on the suggestions of pilot hospitals.

Registration

Registration for SINAP is via CCAD (this is also the method for obtaining a username and password for the web tool). Please go to www.ncasp.org.uk and click on 'Request User' followed by the SINAP option and enter each user's details. Registration is by hospital rather than trust, so *please enter the hospital name rather than the trust name*. The email address must be a valid NHS email account. Up to 10 users can be registered per hospital. If the maximum number of users is reached and a new user account is required, a request can be made to the CCAD Helpdesk for another (no longer required) user account to be removed and a new account set up.

Methods of data collection

Prospective audit (N.B. we would encourage all participants to enter data onto the web tool in 'real time')

Data quality

Clinical involvement and supervision - Each hospital should designate a lead clinician who will have overall responsibility for data quality.

For further information and audit helpdesk queries:

Please contact: The Royal College of Physicians' Stroke Programme, 11 St Andrew's Place, London NW1 4LE.

Tel: 020 3075 1335

E-mail: sinap@rcplondon.ac.uk

SINAP Proforma

Section 1: Patient Demographics

1.1 Hospital: _____

1.2 Patient Audit Number: _____

1.3 Hospital number : _____

1.4 NHS number: _____

(b) No NHS number (e.g. overseas visitor, armed forces, prisoner)

1.5 Surname: _____

1.6 Forename: _____

1.7 Date of birth (dd/mm/yyyy) : _____

1.8 Sex: Male Female

1.9 Postcode of usual address: _____

Section 2: Onset/Admission

2.1 Date and time of onset/awareness of symptoms

- (a) Date (dd/mm/yyyy): _____
(b) Date Not Known
(c) Time (24 hour clock): _____
(d) Time Not Known

2.2 Which healthcare professionals were involved prior to admission? (Please tick all that apply)

- (a) NHS Direct
(b) GP or out of hours service
(c) Accident and Emergency
(d) Emergency ambulance service
(e) Transferred for primary treatment
(f) Already in hospital
(g) Other

If other, please specify: _____

2.3 Ambulance Job Number: _____

Patient did not arrive by ambulance

Not known

2.4 Date and time patient arrived in hospital

(a) Date (dd/mm/yyyy) : _____

(b) Time (24 hour clock) : _____

2.5 Date and time the patient was first seen by a member of stroke team

(a) Date (dd/mm/yyyy) : _____

(b) Time (24 hour clock) : _____

(c) Not seen by member of the stroke team

2.6 Which was the first ward the patient was admitted to? (Please select only one option)

- (a) MAU/Admissions/diagnostic unit
(b) Acute Stroke Unit/Bed
(c) Combined Stroke Unit/Bed
(d) Rehabilitation Stroke Unit/Bed
(e) General/Care of Elderly ward
(f) CCU/HDU
(g) ITU
(h) Other

If other, please specify: _____

2.7 Did the patient stay in a designated stroke bed during this episode? Yes No

2.7(a) Date and time patient arrived on designated stroke bed

(a) Date (dd/mm/yyyy) : _____

(b) Time (24 hour clock) : _____

2.8 What was the diagnosis?

Stroke

TIA

Other

If TIA or Other selected, there are no more mandatory questions and the web tool blocks all questions in sections 3 to 8 (although sections 9 to 11 can be answered)

Section 3: Casemix

3.1 On the basis of history and examination, did the patient present with any of the following?

- (a) Face (weakness/sensory loss) Yes No Unable to assess
- (b) Arm (weakness/sensory loss) Yes No Unable to assess
- (c) Leg (weakness/sensory loss) Yes No Unable to assess
- (d) Dysphasia Yes No Unable to assess
- (e) Hemianopia Yes No Unable to assess
- (f) Inattention/neglect Yes No Unable to assess
- (g) Brainstem/cerebellar signs Yes No Unable to assess
- (h) Other Yes No Unable to assess

If other, please specify: _____

3.2 Was the patient independent in everyday activities prior to stroke?

Yes No Unable to assess

Section 4: Investigations

4.1 What was the initial brain imaging modality?

CT

MRI

Not imaged

4.2 Date and time of first brain imaging

(a) Date (dd/mm/yyyy) : _____

(b) Time (24 hour clock) : _____

4.3 What was the type of stroke?

Infarction

Primary intracerebral haemorrhage

Section 5: Thrombolysis

5.1 Was the patient given thrombolysis? Yes No

5.1(a) If no, what were the reasons for not giving thrombolysis?

None

Haemorrhagic stroke

Thrombolysis not available at all at centre

Patient arrived outside normal thrombolysis service hours

Patient a suitable candidate but unable to scan quickly enough

Patient arrived outside the thrombolysis time window

Patient contra-indicated for thrombolysis due to co-morbidity

Patient contra-indicated for thrombolysis due to age

Patient contra-indicated for thrombolysis due to medication

Patient/carer refused

Other If other, please specify: _____

5.2 Date and time patient was thrombolysed

(a) Date (dd/mm/yyyy) : _____

(b) Time (24 hour clock) : _____

5.3 Was the patient entered into a thrombolysis stroke trial? Yes No

5.4 Door to Needle time: _____

5.5 Which grade of clinician made the decision to thrombolysed the patient?

Consultant/Associate Specialist physician

Junior doctor

Consultant Nurse

Stroke Specialist Nurse

5.6 Was the decision maker:

Present in person

Available via video link

Available via telephone with access to imaging

5.7 What was the specialty of the clinician who made the decision to thrombolysed?

Acute physician

Accident & Emergency

Care of the elderly

Stroke physician

Neurologist

Other If other, please specify: _____

5.8 Did the patient have any complications from the thrombolysis? Yes No

5.8(a) If yes, which of the following:

Symptomatic Brain haemorrhage

Angio oedema

Extracranial bleed

Other

5.9 Did the patient have a follow-up scan? Yes / No

If yes:

5.9(a) Date (dd/mm/yyyy) : _____

5.9(b) Time (24 hour clock) : _____

In sections 6, 7 and 8, the questions shaded in grey must be answered for all three periods. The questions which are not shaded are 'dependent' questions, meaning that you do not have to answer them again if they have already been satisfied (e.g. if you answer 'Yes' for patient given swallowing assessment, you do not have to answer this question in the following section(s)).

Section 6: 0-24 hours	Section 7: 24-48 hours	Section 8: 48-72 hours
6.1 Location (tick all that apply) <input type="checkbox"/> MAU <input type="checkbox"/> ITU <input type="checkbox"/> General Medical Ward <input type="checkbox"/> Stroke Unit <input type="checkbox"/> Other	7.1 Location (tick all that apply) <input type="checkbox"/> MAU <input type="checkbox"/> ITU <input type="checkbox"/> General Medical Ward <input type="checkbox"/> Stroke Unit <input type="checkbox"/> Other	8.1 Location (tick all that apply) <input type="checkbox"/> MAU <input type="checkbox"/> ITU <input type="checkbox"/> General Medical Ward <input type="checkbox"/> Stroke Unit <input type="checkbox"/> Other
6.2 Patient condition <input type="checkbox"/> Dead <input type="checkbox"/> Worse than at presentation <input type="checkbox"/> Same as at presentation <input type="checkbox"/> Better than at presentation <input type="checkbox"/> Full recovery	7.2 Patient condition <input type="checkbox"/> Dead <input type="checkbox"/> Worse than at presentation <input type="checkbox"/> Same as at presentation <input type="checkbox"/> Better than at presentation <input type="checkbox"/> Full recovery	8.2 Patient condition <input type="checkbox"/> Dead <input type="checkbox"/> Worse than at presentation <input type="checkbox"/> Same as at presentation <input type="checkbox"/> Better than at presentation <input type="checkbox"/> Full recovery
6.2(a) What was the patient's worst level of consciousness during this period? <input type="checkbox"/> Fully conscious <input type="checkbox"/> Drowsy <input type="checkbox"/> Semi-conscious (not fully rousable) <input type="checkbox"/> Unconscious (responds to pain only/no response)	7.2(a) What was the patient's worst level of consciousness during this period? <input type="checkbox"/> Fully conscious <input type="checkbox"/> Drowsy <input type="checkbox"/> Semi-conscious (not fully rousable) <input type="checkbox"/> Unconscious (responds to pain only/no response)	8.2(a) What was the patient's worst level of consciousness during this period? <input type="checkbox"/> Fully conscious <input type="checkbox"/> Drowsy <input type="checkbox"/> Semi-conscious (not fully rousable) <input type="checkbox"/> Unconscious (responds to pain only/no response)
6.3 Palliative care decision Yes <input type="checkbox"/> No <input type="checkbox"/>	7.3 Palliative care decision Yes <input type="checkbox"/> No <input type="checkbox"/>	8.3 Palliative care decision Yes <input type="checkbox"/> No <input type="checkbox"/>
6.4 Was the patient assessed by the following during this 24 hour period: Answer no but...if patient unfit for assessment or no deficit. (a) Nurse Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (b) Occupational Therapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (c) Physiotherapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (d) Speech and Language Therapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	7.4 Was the patient assessed by the following during this 24 hour period: Answer no but...if patient unfit for assessment or no deficit. (a) Nurse Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (b) Occupational Therapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (c) Physiotherapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (d) Speech and Language Therapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	8.4 Was the patient assessed by the following during this 24 hour period: Answer no but...if patient unfit for assessment or no deficit. (a) Nurse Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (b) Occupational Therapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (c) Physiotherapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (d) Speech and Language Therapist Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>
6.5 Did the patient receive the following during this 24 hour period? Answer no but...if patient unfit for assessment (a) Nutrition screening assessment: Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (b) Formal swallowing assessment: Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (c) Seen by stroke consultant or associate specialist: Yes <input type="checkbox"/> No <input type="checkbox"/>	7.5 Did the patient receive the following during this 24 hour period? Answer no but...if patient unfit for assessment (a) Nutrition screening assessment: Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (b) Formal swallowing assessment: Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (c) Seen by stroke consultant or associate specialist: Yes <input type="checkbox"/> No <input type="checkbox"/>	8.5 Did the patient receive the following during this 24 hour period? Answer no but...if patient unfit for assessment (a) Nutrition screening assessment: Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (b) Formal swallowing assessment: Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/> (c) Seen by stroke consultant or associate specialist: Yes <input type="checkbox"/> No <input type="checkbox"/>

Section 6: 0-24 hours	Section 7: 24-48 hours	Section 8: 48-72 hours
6.6 Was the prognosis/ diagnosis discussed with relatives/carer in this 24 hour period? Answer no but...if relative, carer or patient refused or no carer available Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	7.6 Was the prognosis/ diagnosis discussed with relatives/carer in this 24 hour period? Answer no but...if relative, carer or patient refused or no carer available Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	8.6 Was the prognosis/ diagnosis discussed with relatives/carer in this 24 hour period? Answer no but...if relative, carer or patient refused or no carer available Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>
6.7 Was oxygen saturation less than 95%? Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed <input type="checkbox"/>	7.7 Was oxygen saturation less than 95%? Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed <input type="checkbox"/>	8.7 Was oxygen saturation less than 95%? Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed <input type="checkbox"/>
6.7(a) If yes, was oxygen given? Answer no but...if contra-indicated. Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	7.7(a) If yes, was oxygen given? Answer no but...if contra-indicated. Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	8.7(a) If yes, was oxygen given? Answer no but...if contra-indicated. Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>
6.8 How frequently were neurological observations made during this 24 hour period? <ul style="list-style-type: none"> ○ Hourly or more frequently <input type="checkbox"/> ○ 2-3 hourly <input type="checkbox"/> ○ 4 hourly <input type="checkbox"/> ○ 5-12 hourly <input type="checkbox"/> ○ 13-24 hourly <input type="checkbox"/> ○ No neurological observations during this period <input type="checkbox"/> 	7.8 How frequently were neurological observations made during this 24 hour period? <ul style="list-style-type: none"> ○ Hourly or more frequently <input type="checkbox"/> ○ 2-3 hourly <input type="checkbox"/> ○ 4 hourly <input type="checkbox"/> ○ 5-12 hourly <input type="checkbox"/> ○ 13-24 hourly <input type="checkbox"/> ○ No neurological observations during this period <input type="checkbox"/> 	8.8 How frequently were neurological observations made during this 24 hour period? <ul style="list-style-type: none"> ○ Hourly or more frequently <input type="checkbox"/> ○ 2-3 hourly <input type="checkbox"/> ○ 4 hourly <input type="checkbox"/> ○ 5-12 hourly <input type="checkbox"/> ○ 13-24 hourly <input type="checkbox"/> ○ No neurological observations during this period <input type="checkbox"/>
6.9 Was the patient given an antiplatelet during this period? Answer no but...if contra-indicated. Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	7.9 Was the patient given an antiplatelet during this period? Answer no but...if contra-indicated. Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	8.9 Was the patient given an antiplatelet during this period? Answer no but...if contra-indicated. Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>
6.10 Did the patient receive more than 1 litre fluid during this 24 hour period? Yes <input type="checkbox"/> No <input type="checkbox"/> Not known <input type="checkbox"/>	7.10 Did the patient receive more than 1 litre fluid during this 24 hour period? Yes <input type="checkbox"/> No <input type="checkbox"/> Not known <input type="checkbox"/>	8.10 Did the patient receive more than 1 litre fluid during this 24 hour period? Yes <input type="checkbox"/> No <input type="checkbox"/> Not known <input type="checkbox"/>
6.11 Did the Patient receive adequate nutrition during this 24h period? Yes <input type="checkbox"/> No <input type="checkbox"/> Not known <input type="checkbox"/>	7.11 Did the Patient receive adequate nutrition during this 24h period? Yes <input type="checkbox"/> No <input type="checkbox"/> Not known <input type="checkbox"/>	8.11 Did the Patient receive adequate nutrition during this 24h period? Yes <input type="checkbox"/> No <input type="checkbox"/> Not known <input type="checkbox"/>

Section 6: 0-24 hours	Section 7: 24-48 hours	Section 8: 48-72 hours
6.12 Did the patient have an indwelling catheter during this period? Yes <input type="checkbox"/> No <input type="checkbox"/>	7.12 Did the patient have an indwelling catheter during this period? Yes <input type="checkbox"/> No <input type="checkbox"/>	8.12 Did the patient have an indwelling catheter during this period? Yes <input type="checkbox"/> No <input type="checkbox"/>
6.12(a) If yes, reason for catheterisation: <input type="checkbox"/> Retention of urine <input type="checkbox"/> <input type="checkbox"/> Incontinent <input type="checkbox"/> <input type="checkbox"/> Critical skin care <input type="checkbox"/> <input type="checkbox"/> Pre-existing catheter <input type="checkbox"/> <input type="checkbox"/> For accurate fluid balance monitoring <input type="checkbox"/> <input type="checkbox"/> Not documented/ Other <input type="checkbox"/>	7.12(a) If yes, reason for catheterisation: <input type="checkbox"/> Retention of urine <input type="checkbox"/> <input type="checkbox"/> Incontinent <input type="checkbox"/> <input type="checkbox"/> Critical skin care <input type="checkbox"/> <input type="checkbox"/> Pre-existing catheter <input type="checkbox"/> <input type="checkbox"/> For accurate fluid balance monitoring <input type="checkbox"/> <input type="checkbox"/> Not documented/ Other <input type="checkbox"/>	8.12(a) If yes, reason for catheterisation: <input type="checkbox"/> Retention of urine <input type="checkbox"/> <input type="checkbox"/> Incontinent <input type="checkbox"/> <input type="checkbox"/> Critical skin care <input type="checkbox"/> <input type="checkbox"/> Pre-existing catheter <input type="checkbox"/> <input type="checkbox"/> For accurate fluid balance monitoring <input type="checkbox"/> <input type="checkbox"/> Not documented/ Other <input type="checkbox"/>
6.13 Has a continence plan been drawn up in this 24 hour period? Answer no but...if patient is continent or unconscious Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	7.13 Has a continence plan been drawn up in this 24 hour period? Answer no but...if patient is continent or unconscious Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>	8.13 Has a continence plan been drawn up in this 24 hour period? Answer no but...if patient is continent or unconscious Yes <input type="checkbox"/> No <input type="checkbox"/> No but <input type="checkbox"/>
6.14 Was the patient discharged from this hospital during this 24 hour period? Yes <input type="checkbox"/> No <input type="checkbox"/>	7.14 Was the patient discharged from this hospital during this 24 hour period? Yes <input type="checkbox"/> No <input type="checkbox"/>	8.14 Was the patient discharged from this hospital during this 24 hour period? Yes <input type="checkbox"/> No <input type="checkbox"/>
6.15 Other major interventions during first 24 hours: <input type="checkbox"/> None <input type="checkbox"/> <input type="checkbox"/> Intraarterial thrombolysis <input type="checkbox"/> <input type="checkbox"/> Clot retrieval <input type="checkbox"/>		

Section 9: Discharge

This section is only mandatory if 'Yes' selected for 6.14, 7.14 or 8.14.

9.1 Was the patient entered into a randomised stroke trial?

Yes No

9.2 Did the patient have neurosurgery during the first 72 hours?

None

Hemicraniectomy

Ventricular Shunting

Haematoma removal

Other

9.3 Was the patient referred to a tertiary centre?

Yes No

9.4 Final discharge destination:

Home/usual place of residence

Bed based intermediate care

Other hospital

Stroke unit at other hospital

Dead

Other

Section 10: Supplementary (not mandatory)

10.1 Final date of discharge from stroke unit (dd/mm/yyyy) : _____

10.2 Final date of discharge from hospital (dd/mm/yyyy) : _____

10.3 Did the patient spend more than 90% of their stay on the stroke unit?

Yes No

10.3(a) If no, please give the reason why the patient was not on the stroke unit for more than 90% of their stay:

10.4 Rankin score at 3 months (0-6) : _____

10.5 If the patient had a TIA, were they high risk? (i.e. ABCD2 score of 4 or more or crescendo TIA)

Yes No

10.5(a) If high risk TIA, was the patient seen, investigated and treatment initiated within 24 hours?

Yes No

10.5(b) If low risk TIA, was the patient seen, investigated and treatment initiated within 7 days?

Yes No