

Supplementary file 1

Proforma for Assessment of Stroke Patient Load from Hospitals/Scan Centres/GPs

Hospital/Scan Centre/Clinic Name: _____

Address: _____

Corporation Ward Number: _____

Contact Phone Numbers/E mails: _____

Name of the Doctor In-Charge: _____

Services Information:

1. Do you see stroke patients in your hospital/scan centre/clinic? Yes No

If Yes

2. Do you have a neurologist/physician available or on call?
3. Does your hospital have the following diagnostics?

- | | | |
|---------|-----|----|
| a). MRI | Yes | No |
| b). CT | Yes | No |

4. To which Departments in your hospital Stroke patients come?

Patient load Information

1. How many stroke patients do you see in your hospital/scan centre in a week?
2. How many stroke patients are admitted in your hospital in a week?
3. How many stroke patients are discharged every week from your hospital ?
4. How many stroke patients are treated in the OPDs every week?

Name of the Interviewer _____ **Date:** _____

Supplementary file 2

Risk factors definitions:

Diabetes Mellitus: Previous diagnosis of diabetes mellitus or on treatment or fasting plasma glucose ≥ 126 mg/dL or single value ≥ 200 mg/dl [17].

Hypertension: Systolic BP ≥ 140 mmHg, diastolic BP ≥ 90 mmHg or currently under treatment for BP. Patient has diagnosed or self reported raised blood pressure, or uses antihypertensive drugs [18].

Hyperlipidemia: Patient having previous diagnosis or receiving lipid lowering drugs, or total cholesterol ≥ 240 mg/dL or low density lipoprotein ≥ 160 mg/dl [19].

Atrial Fibrillation (AF): Lone atrial fibrillation (LAF) – presence of AF in the absence of clinical or echocardiographic findings of other cardiovascular disease (including hypertension), related pulmonary disease, or cardiac abnormalities such as enlargement of the left atrium, and age under 60 years [20].

Non valvular AF – Presence of AF without rheumatic mitral valve disease, a prosthetic heart valve, or mitral valve repair [20].

Secondary AF - Occurs in the setting of a primary condition which may be the cause of the AF, such as acute myocardial infarction, cardiac surgery, pericarditis, myocarditis, hyperthyroidism, pulmonary embolism, pneumonia, or other acute pulmonary disease [20].

Has atrial fibrillation in ECG prior to stroke (records seen) or during hospitalization.

Carotid stenosis: Carotid duplex scan evidence of mild (0-29%), moderate (30% to 69%) and severe stenosis (70% to 99%) or previous history/evidence of carotid stenosis [21].

Previous history of TIA: Past history of a focal (or at times global) neurological impairment of sudden onset, and lasting <24 hours.

Rheumatic heart disease (RHD): Chronic heart condition due to heart damage from rheumatic fever. Previously diagnosed/treated for RHD or new diagnosis based on echocardiogram.

Coronary heart disease: Previous history/treatment of stable angina, unstable angina, myocardial infarction, CABG, angioplasty or new angina/myocardial infarction diagnosed by ECG/Echocardiogram [22].

Tobacco current use and past use: Patient is a current tobacco user (smoking and other forms of tobacco), or was a recent tobacco user but stopped less than 3 months before acute stroke event.

Supplementary file 3

Questionnaire 1: Hospitals and OPD Patients

Subject Identification Number

Date of registration
d d m m y y y y

Source of data: Public Hospital (1) Private Hospital (2)
General Practitioner (3)
Others (4) Referral hospital (5)

Name of centre:

Patient individual details

Patient's Full Name/Initials
Use CAPITALS, include all names

Contact phone number

Postal address

Demographic characteristics of patient

Date of birth, **DAY** **MONTH** **YEAR**

If date of birth unknown, enter **AGE** in years

Sex [select one] Male (1) Female (2)

Marital status [select one] Married (1) Never married (2)
Divorced/separated (3) Widow (er) (4)

Religion [select one] Sikh (1) Hindu (2) Muslim (3)
Jain (4) Christian (5) Others (6)

Resident of Ludhiana: Yes (1) No (2)

Duration of residence (in months):

Education:

What is the highest level of education the person has completed? [Select one]

- | | | | | |
|------------------------------|-----|--------------------------|-----|--------------------------|
| No schooling | (0) | Less than primary school | (1) | <input type="checkbox"/> |
| Primary school completed | (2) | High school completed | (3) | |
| Secondary school completed | (4) | Professional School | (5) | |
| College/university completed | (6) | Post graduate degree | (7) | |
| Unknown | (8) | | | |

Occupation:

Which of the following best describes the main work status of the person over the last 12 months? [Select one]

- | | | | | |
|---------------------|-----|-------------------------|------|--------------------------|
| Government employee | (1) | Non-government employee | (2) | <input type="checkbox"/> |
| Business | (3) | Student | (4) | |
| Housewife | (5) | Retired | (6) | |
| Unemployed | (7) | Disabled | (8) | |
| Unknown | (9) | Farmer | (10) | |

Information on acute stroke event

Date of stroke (*symptoms onset, or first noticed on*) (DD/MM/YYYY)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

First ever stroke: Yes (1) No (2)

Presenting symptoms

Which side of the body was affected? [Select one]

Left (1) Right (2) Both (3) No (4) Insufficient data (9)

Limb weakness: Yes (1) No (2) Insufficient data (9)

Loss of sensation: Yes (1) No (2) Insufficient data (9)

Aphasia / Dysphasia: Yes (1) No (2) Insufficient data (9)

Double vision: Yes (1) No (2) Insufficient data (9)

Unsteady gait: Yes (1) No (2) Insufficient data (9)

Dizziness:	Yes (1)	No (2)	Insufficient data (9)	<input type="checkbox"/>
Headache:	Yes (1)	No (2)	Insufficient data (9)	<input type="checkbox"/>
Dysarthria:	Yes (1)	No (2)	Insufficient data (9)	<input type="checkbox"/>
Seizures:	Yes (1)	No (2)	Insufficient data (9)	<input type="checkbox"/>
Loss of consciousness	Yes (1)	No (2)	Insufficient data (9)	<input type="checkbox"/>
Facial weakness	Yes (1)	No (2)	Insufficient data (9)	<input type="checkbox"/>
Deviation of mouth	Yes (1)	No (2)	Insufficient data (9)	<input type="checkbox"/>

What type of stroke was diagnosed?*[Select one]*

Ischemic stroke (1)	Intracerebral hemorrhage (2)	<input type="checkbox"/>
Subarachnoid hemorrhage (3)	Cerebral Venous Thrombosis (4)	
Transient Ischemic Attack (5)	Unspecified type (6)	

How was the diagnosis of stroke type verified?*[Select one]*

Clinical diagnosis alone (1)	MRI scan (2)	CT scan (3)	MRI,CT Scan (4)	<input type="checkbox"/>
------------------------------	--------------	-------------	-----------------	--------------------------

Vascular risk factors

Which of the following vascular risk factors is the patient known to have? Yes (1), No (2), unknown (9)

Atrial fibrillation		Tobacco (Current Use)	
Diabetes mellitus		Tobacco (Past)	
Hypertension		Hyperlipidemia	
Carotid stenosis		Alcohol (Current use)	
Previous TIA		Alcohol (Past)	
Rheumatic Heart Disease		Pregnancy/Postpartum	
Coronary artery disease		Neuro Infection	
Drug addiction			

Outcome: Discharge (1)
Death (2)
LAMA (3)

If alive at discharge, **modified Rankin scale (mRS)** (select one)

- 0 - No symptoms at all
- 1 - No significant disability despite symptoms
- 2 - Slight disability
- 3 - Moderate disability, but able to walk without assistance
- 4 - Moderate disability and unable to walk without assistance
- 5 - Severe disability
- 6 - Death

Name and Signature:

Questionnaire 3 : Stroke patients from scan centres

Subject Identification Number

--	--	--	--	--	--	--	--	--	--

Name of the Scan centre with Phone number:

Name of the referring Physician / Neurologist/Hospital

Patient individual details

Patient's Full Name/Initials

Use CAPITALS, include all names

Contact phone number

Include area codes

Postal address

Resident of Ludhiana: Yes (1) No (2)

Duration of residence (in months):

Demographic characteristics of patient

Date of birth, **DAY**

--	--

MONTH

--	--

YEAR

--	--	--	--

If date of birth unknown, enter **AGE** in years

--	--	--

Sex [*select one*]

Male (1) Female (2)

Information on acute stroke event

Date of stroke

--	--

d d

--	--

m m

--	--	--	--

y y y y

First ever stroke: 1-Yes, 2-No

What type of stroke was diagnosed? [*Select one*]

Ischemic stroke (1)

Intracerebral hemorrhage (2)

Subarachnoid hemorrhage (3)

Cerebral Venous Thrombosis (4)

Transient Ischemic Attack (5)

Unspecified type (6)

How was the diagnosis of stroke type verified? [*Select one*]

Clinical diagnosis alone (1) MRI scan (2) CT scan (3) MRI,CT Scan (4)

Name and signature

Questionnaire 4 : Deaths registered with Municipal authorities

Individual details

Full Name [_____]

Use CAPITALS, include all names

Contact phone number [_____]

Include area codes

Contact address [_____]

Age:
(completed years)

--	--	--

Gender:

Male (1)

Female (2)

Subject identification number:

--	--	--	--	--	--	--	--	--	--

Date of registration

--	--	--	--	--	--	--	--

d d m m y y y y

Duration of residence in months:

--	--	--

Date of death:

--	--	--	--	--	--	--	--

d d m m y y y y

Cause of death (as mentioned in the death certificate Form 4 or 4A):

Antecedant cause of death

Associated conditions at death

ICD 10 coding

Place of death: Hospital (1) Home (2) Others (3)

Name of the Hospital:

Name and signature

Questionnaire 5 : VERBAL AUTOPSY FORM

1. Name :

2. Age :

3. Sex :

4. Address :

5. Date of death :

6. Date of verbal autopsy :

7. Occupation of deceased :

8. Informant's Name :

9. Relation to the dead :

1) Mother 2) Father 3) Son 4) Daughter 5) Others

10. Was the informant present at time of death of the person? 1. Yes 2. No

11. Did the informant live with the deceased? 1. Yes 2. No

12. Where did the death occur? 1. Hospital 2. Home 3. Elsewhere

13. Details of Death and the events before the death:

14. Was there a history of risk factors? Hypertension 1. Yes 2. No

Diabetes Milletus 1. Yes 2. No

Smoking 1. Yes 2. No

Heart disease 1. Yes 2. No

Alcohol Consumption 1. Yes 2. No

Hyperlipidemia 1. Yes 2. No

15. Detailed verbal autopsy of cause of death (details of previous illness, treatment and

the events leading to death?

- Was the deceased ill prior to death? Yes/No
- Did s/he have weakness on one side of the body prior to death? Yes/No
- Did that weakness develop suddenly? Yes/No
- Did it last more than 24 hours? Yes/No
- Was it a sudden death? Yes/No
- Was there a history of severe headache just prior to death? Yes/No
- How many days was the patient ill before death? Yes/No
- Was the patient seen by a medical or health professional? Yes/No
- Was the patient admitted to hospital or a clinic? Yes/No
- How many nights? _____

16. What is the presumed cause of death?

Name of the Investigator completing the form:

Supplementary file 4

Questionnaire for the Municipal Corporation Deaths

Name of the patient -----

Age -----

Gender ----

Phone no -----

Address-----

1. Did the deceased have weakness on one side of body? Yes/No
2. Did the weakness develop suddenly? Yes/No
3. Did the weakness last more than 24 hours? Yes/No
4. Was the patient unable to speak prior to death? Yes/No
5. Did the patient have a deviation of mouth? Yes/No
6. Did the patient suffer loss of consciousness prior to death? Yes/No
7. Did the patient suffer severe headache just prior to death? Yes/No