



National Stroke Audit
Supplementary Report
2016

Introduction

The contents of the following supplement should be read in relation to the National Stroke Foundation's *National Stroke Audit - Rehabilitation Services Report 2016*. This report can be accessed from the Stroke Foundation's new website, *InformMe*:

<https://informme.org.au/stroke-data>

Appendix 1: Participating Hospitals

We would like to thank everyone involved at all participating hospitals for their support and hard work on the National Stroke Audit - Rehabilitation Services 2016.

ACT

Calvary Health Care
David Morley and team

Canberra Hospital
Amy Chong, Chris Katsogiannis and team

NSW

Armidale Hospital
Amanda Styles, Melissa Gill and team

Ballina District Hospital
Denise McCall, Kim Hoffman and team

Balmain Hospital
Indu Nair and team

Bankstown Lidcombe Hospital
Angela Firtko and team

Bathurst Hospital
Fiona Ryan and team

Belmont Hospital
Karen Ruddell and team

Berkeley Vale private Hospital
Michelle Turner and team

Braeside Hospital – Rehab
Caitlin Anderson, Kerry Gilsenan and team

Coffs Harbour Base Hospital
Melissa Christos and team

Coledale District Hospital
Helen Brooks and team

Concord Hospital
Clare Griffin, Veena Raykar and team

David Berry Hospital
Jacqui Cornell and team

Greenwich Hospital
Brad Carpenter and team

Griffith Base Hospital
Lorraine Maxwell and team

Hornsby & Ku-ring-gai Hospital
Cesar Tuy and team

John Hunter Hospital
Helen Baines and team

Kempsey District Hospital
Marianne Miller and team

Lady Davidson private Hospital
Suellen Fulton and team

Maitland Hospital
Karen Reid and team

Mercy Care Centre Young
Lucie Flynn and team

Metro Rehabilitation Hospital
Anna Barlow and team

Mona Vale Hospital
Jasmine Gilchrist and team

Mount Druitt Hospital
Loraine Stephenson and team

Murwillumbah District Hospital
Kelly Andersen and team

Nepean Hospital
Roslynne Marshall and team

Orange Base Hospital
Fiona Ryan and team

Prince of Wales Hospital
Andrew Murray and team

Royal Rehab Private
Gail Teale-Sinclair and team

Ryde Hospital
Sandra Lever and team

Sacred Heart Health Service
Samantha John and team

Shoalhaven District Memorial Hospital
Jacqui Cornell and team

St George Hospital
Feraja Katjaz and team

Sutherland Hospital
Victoria Byiers and team

Tamworth Base Hospital
Sue Simpson and team

Wagga Wagga Rural Referral Hospital
Katherine Mohr and team

War Memorial Hospital
Fiona Russell and team

Westmead Hospital
Andrew Evans and team

Wingham Community Hospital
Jennifer Rudd and team

NT

Royal Darwin Hospital
Howard Flavell and team

QLD

Brighton Health Campus and Services
Paul Bew and team

Bundaberg Base Hospital
Daniel Somerfield and team

Cairns Base Hospital
Dijana Cukanovic-Krebs,
Jennifer Mann and team

Caloundra Hospital
Maria Pardoen and team

Gold Coast University Hospital
Annetta Palfrey and team

Greenslopes private Hospital
Claire Carsley and team

Gympie Hospital
Rebecca Sjodin and team

Ipswich Hospital
Linda Edwards and team

John Flynn private Hospital
Janey McDonough and team

Logan Hospital
Gillian Emmanuel and team

Mackay Base Hospital
Tricia Callow and team

Maleny Hospital
Nicole O'Donnell and team

Maryborough Base Hospital
Pauline Blaney and team

Mater Health Services
Marie McCaig and team

Prince Charles Hospital
Dane Robinson and team

Princess Alexandra Hospital
Phil Aitken and team

Queen Elizabeth II Jubilee Hospital
Jerry Wong and team

Redcliffe Hospital
Kerrie Garrad and team

Robina Hospital
Diane Greenwood,
Sharon Monger and team

Rockhampton Hospital
Anette Horton and team

Royal Brisbane and Women's Hospital
Kana Appadurai and team

St Andrew's War Memorial Hospital
Matthew Breakspear and team

Toowoomba General Hospital
Timothy Richardson and team

Townsville Hospital
Toni McCormack and team

SA

Calvary Rehabilitation Hospital
Kathy Penniment and team

Griffith Rehabilitation Hospital
Lauri Wild and team

Hampstead Rehabilitation Centre
Margaret Manning and team

Modbury Hospital
Jane Gray and team

Mount Gambier Hospital
Helen McQueen and team

Repatriation General Hospital
Siobhan Jackson and team

Whyalla Hospital
Susan Watkins and team

TAS

Calvary Healthcare Tasmania - St Johns Campus

Sandra Hniat and team

Launceston General Hospital

Polly Showell and team

North West Regional Hospital

Janell Cole and team

Royal Hobart Hospital

Brendan Bakes and team

VIC

Albury Wodonga Health - Wodonga Campus

Vanessa Crosby and team

Angliss Hospital

Shae Cooke and team

Bairnsdale Hospital

Suzanne McArthur and team

Ballarat Health Services Queen Elizabeth Centre

Cathy Caruso-Robinson and team

Barwon Health - McKellar Centre

Heather Smith, Natasha Selenitsch and team

Bendigo Hospital

Leanne Muns and team

Broadmeadows Health Service

Vincent Lavery and team

Cabrini Health

Suzy Goodman and team

Casey Hospital

Mary-Louise Devlin and team

Caulfield General Hospital

Catherine Brooks and team

Central Gippsland Health Service

Sue Roberts and team

Dandenong Hospital

Christopher Ellis and team

Echuca Hospital

Lauren Arthurson and team

Epworth HealthCare Richmond

Bianca Fedele and team

Goulburn Valley Hospital

Anne Robinson and team

Hamilton Base Hospital

Aisling Cunningham and team

Horsham Base Hospital

Louise Mason and team

Kingston Centre

Whitney Lipman and team

Latrobe Regional Hospital

Nerylee Morris and team

Mildura Base Hospital

Bronwyn Daymond, Joanne Cottrell and team

North Eastern rehabilitation Centre

Jini Lim and team

Northeast Health

Nicole Sullivan and team

Wangaratta

Nicole Sullivan and team

Peninsula Health - Golf Links Rd Rehab Unit 1

Caitlin Casson and team

Peninsula Health - Rosebud Hospital

Caitlin Casson and team

Peter James Centre

Genevieve Kennedy and team

Royal Melbourne Hospital

Louisa Ng and team

Royal Talbot Rehabilitation Centre

Joanna Cameron and team

St John of God Bendigo

Suhaila Rizal Shah and team

St Vincent's Hospital Victoria

Meaghan MacKenzie and team

Sunshine Hospital - Western Health

Durga Shrestha and team

The Mornington Centre

Caitlin Casson and team

Warrnambool Base Hospital

Patrick Groot and team

WA

Albany Hospital

Amy Dunjey and team

Armadale/Kelmscott Memorial Hospital

Alexandra Dray and team

Bentley Health Service - Bentley Hospital

Kieran English and team

Bunbury Hospital

Renee Dehring and team

Busselton District Hospital

Renee Dehring and team

Fiona Stanley Hospital
Beverley Hardcastle and
team

Fremantle Hospital
Alicia Massarotto and
team

**Geraldton Regional
Hospital**
Ruth Warr and team

**Hollywood private
Hospital**
Claire Tucak and team

**Joondalup Health
Campus**
Michelle Young and team

Osborne Park Hospital
Kien Chan, Patricia
Morgan and team

**Rockingham General
Hospital**
Helen Thomas and team

**St John of God Midland
Public Hospital**
Timothy Bates and team

Appendix 2: Organisational Survey and Clinical Audit questions (2016)

ORGANISATIONAL SURVEY

1.00 Which of the following best describes the rehabilitation service at your site?
Free standing rehabilitation hospital / Rehabilitation ward within acute hospital in same building of same health campus / Rehabilitation ward within acute hospital in separate buildings of same health campus / Rehabilitation service within acute hospital (no designated beds)

1.01 How many beds are dedicated for inpatient rehabilitation at your site?

1.02 Does your site have a dedicated stroke rehabilitation unit with co-located stroke beds within a geographically defined unit?

Yes / No

a. If yes, how many designated stroke beds are there?

1.03 How many stroke rehabilitation patients (patients coded with a rehabilitation episode-type):

a. Are currently in all your inpatient rehabilitation beds today?

b. Were admitted to your site last year?

c. Are currently in your dedicated stroke rehabilitation unit today?

d. Were admitted to your dedicated stroke rehabilitation unit last year?

1.04 Regarding assessing suitability for inpatient rehabilitation, who is responsible for making the decision to refer for rehabilitation at your hospital?

a. Acute physician

b. Post acute physician (rehabilitation physician, geriatrician, general physician)

c. Nurse

d. Multidisciplinary team (acute)

e. joint acute / rehabilitation team member/s

e. Other team member *[specify]*

1.05 Is there a standardised process regarding assessing suitability for inpatient rehabilitation at your hospital?

Yes / No

1.06 Routinely when does the assessment for inpatient rehabilitation occur?

Early (within first 3-4 days) of acute admission / Within the first week of acute admission /

After the first week of acute admission / Varies

1.07 Do you have regular multidisciplinary team meetings for the interchange of information about individual stroke patients?

Yes / No

a. How often are these meetings held per month? *[Specify]*

1.08 Does your site have a formal process for developing and documenting goals with patients?

Yes / No

1.09 How does your hospital usually establish patient-directed goals?

Patient interviewed by each discipline only / Goals discussed and reviewed at team meeting after patient meets with each discipline separately / Patient and full multidisciplinary team set goals together / Ad hoc -no consistent process used / Goals not patient-directed at this

hospital / Other

1.10 Does your site provide therapy in a group setting?

Yes / No

1.11 Do patients with motor impairments undertake at least one hour of active physical therapy (physiotherapy and/or OT) per day (at least five times per week)? This should not include time spent watching others.

Yes / No

1.12 Does your hospital routinely provide patient information prior to discharge

Yes / No

If yes, which of the following are included:

- a. Stroke care, implications and recovery
- b. Secondary prevention
- c. Local community care arrangements
- d. Community stroke support groups
- e. Is aphasia friendly communication available for all of the above

1.13 Are there documented processes and systems to support routine use of evidence-based guidelines to inform clinical care?

Yes / No

1.14 Are there documented processes and systems to monitor the routine use of evidence-based guidelines to inform clinical care?

Yes / No

1.15 Are there documented processes and systems to ensure patients receive evidence-based intensity of therapy related to their goals?

Yes / No

1.16 Is there a dedicated person liaising between acute and rehabilitation services?

Yes / No

1.17 Is there onsite telehealth facility which has been utilised for clinical decision making within the last six months?

Yes / No

1.18 Please identify which of the following health professionals are actively involved in the rehabilitation management of stroke patients at your hospital?

- a. Rehabilitation physician Yes / No
- b. Geriatrician Yes / No
- c. General medical physician Yes / No
- d. Neurologist Yes / No
- e. General practitioner/visiting medical officers Yes / No
- f. Rehabilitation nurse Yes / No
- g. Clinical nurse consultant Yes / No
- h. Clinical nurse specialist Yes / No
- i. Physiotherapist Yes / No
- j. Speech pathologist Yes / No
- k. Dietitian Yes / No
- l. Social worker Yes / No
- m. Occupational therapist Yes / No
- n. Clinical psychology Yes / No

- o. Neuropsychologist *Yes / No*
- p. Recreational therapist *Yes / No*
- q. Diversional therapist *Yes / No*
- r. Allied health assistant/therapy assistant *Yes / No*
- s. Medical resident *Yes / No*
- t. Stroke liaison officer/stroke care coordinator *Yes / No*
- u. Other [*Specify*]

1.19 Which of the following is the medical leader responsible for the management of your stroke rehabilitation patients? Please indicate whether this is a formal recognition (a defined process exists), or whether this person usually assumes the responsibility.

- a. Rehabilitation physician
- b. Geriatrician
- c. General medical physician
- d. Neurologist
- e. General practitioner/visiting medical officers

1.20 Is there a program for the continuing education of staff relating to the management of stroke? *Yes / No*

1.21 Does your site have access to the following Community rehabilitation services:

- a. Outpatient rehabilitation *Yes / No*
- b. Day hospital *Yes / No*
- c. Community-based rehabilitation provided in the home *Yes / No*
- d. Stroke specific Early Supported Discharge *Yes / No*

1.22 Does your site have protocols guiding discharge planning for your stroke rehabilitation patients *Yes / No*

1.23 Are patients routinely given a discharge care (personal recovery) plan on discharge from hospital
Yes / No

1.24 Does your site routinely provide carer training to carers requiring it?
Yes / No

1.25 Are patients/carers given details of a hospital contact on transfer from hospital to community? *Yes / No*

1.26 Does your site routinely follow up stroke patients to assess their post stroke needs?
Yes / No

1.27 Over the last 2 years has the stroke team been involved in quality improvement activities that have included collecting and reviewing local stroke data and agreeing on strategies to improve care? *Yes / No*

CLINICAL AUDIT

Auditor information

- 1.02 Auditor name *[auto-populated]*
- 1.03 Auditor Email *[auto-populated]*
- 1.04 Auditor discipline *[auto-populated]*

Patient demographics

Patient details

- 2.09 Date of birth
- 2.13 Gender
- 2.17 Interpreter needed
- 2.18 Is the patient of Aboriginal/Torres Strait Islander origin?

Admission and transfer information

Admission details

- 4.34 What date was the patient admitted to the inpatient rehabilitation facility?

Intra hospital transfers

- 4.66 Prior to rehabilitation, where has the patient come from?
Stroke unit/ Acute inpatient ward / Other rehabilitation ward / General practitioner referral / Other / Unknown
- 4.67 Where was this patient treated during inpatient rehabilitation?
Dedicated stroke rehabilitation unit / Neurorehabilitation unit / Combined acute and rehabilitation unit / Mixed rehabilitation ward

Acute clinical data

- 7.55 Type of stroke
TIA / Ischaemic / Haemorrhage / Undetermined

Other clinical information

Impairments on admission *[Note: please answer this as admission to rehabilitation]*

On admission were any of the following impairments present?

- 9.00 Sensory deficit *Yes / No*
- 9.01 Cognitive deficit *Yes / No*
- 9.02 Visual deficit *Yes / No*
- 9.03 Perceptual deficit *Yes / No*
- 9.04 Speech and communication deficit *Yes / No*
- 9.05 Hydration problems *Yes / No*
- 9.06 Nutrition problems *Yes / No*
- 9.07 Arm deficit *Yes / No*

Hydration and nutrition

- 9.27 Was the patient at risk of malnutrition? *Yes / No*

Management included:

- 9.33 Ongoing monitoring by a dietitian *Yes / No*
- 9.34 Nutritional supplementation for those whose nutritional status was poor or

deteriorating Yes / No
9.35 Alternative feeding Yes / No
9.355 Type NG feeding / PEG

Mobilisation

9.36 Was the patient able to walk independently on admission? (i.e. may include walking aid, but without assistance from another person) Yes / No

Management included

9.41 Tailored, repetitive practice of walking (or components of walking) Yes / No
9.42 Cueing of cadence Yes / No
9.43 Mechanically assisted gait (via treadmill or other mechanical or robotic device) Yes / No
9.44 Joint position biofeedback Yes / No
9.45 Other therapy Yes / No

Arm deficit

Management included:

9.51 Constraint-induced movement therapy (in selected people) Yes / No
9.52 Repetitive task-specific training Yes / No
9.53 Mechanically assisted training Yes / No
9.54 Other therapy Yes / No

Continence

9.55 Was the patient assessed for urinary incontinence within 72hrs [Note: this is a generic question; for the purposes of the Rehabilitation Audit, please treat as 72 hours within admission to rehabilitation] Yes / No

9.62 Did the patient have urge incontinence Yes / No

9.64 Did the patient have urinary retention Yes / No

9.66 Was a urinary incontinence management plan documented? Yes / No

Mood

9.74 Was the patient's mood assessed? Yes / No

9.78 Did the patient have a mood impairment (depression, emotional lability or anxiety)? Yes / No

Management included:

9.79 Antidepressants Yes / No
9.80 Psychological (e.g. Cognitive-behavioural) interventions Yes / No
9.81 Other therapy Yes / No
9.82 No therapy provided Yes / No

ADL

9.83 Did the patient have difficulty with Activities of Daily Living? Yes / No

Management included:

9.84 Task specific practice Yes / No
9.85 Trained use of appropriate aids Yes / No
9.86 Other Yes / No

Aphasia

9.87 Did the patient have aphasia? Yes / No

Management included:

- 9.88 Alternative means of communication (e.g. gestures, drawing, writing, use of augmentative and alternative communication devices) *Yes / No*
- 9.89 Phonological & semantic interventions *Yes / No*
- 9.90 Constraint-induced language therapy *Yes / No*
- 9.91 Supported conversation techniques *Yes / No*
- 9.92 Delivery of therapy programs via computer *Yes / No*
- 9.93 Group therapy (e.g. conversation groups) *Yes / No*
- 9.94 Other therapy *Yes / No*

Neglect

9.95 Did the patient have neglect/inattention? *Yes / No*

Management included:

- 9.96 Visual scanning training with sensory stimulation *Yes / No*
- 9.97 Prism adaptation *Yes / No*
- 9.98 Eye patching *Yes / No*
- 9.99 Simple cues to draw attention to the affected side *Yes / No*
- 10.00 Mental imagery training or structured feedback *Yes / No*
- 10.01 Other therapy *Yes / No*

Dependency within 72 hours of admission

10.31 First known modified Rankin Scale (within 72 hours of admission)

Scores of 0 through to 6

10.32 Unknown/derive

10.34 Total Motor FIM score on discharge

10.35 Unknown

10.36 Total Cognitive FIM score on discharge

10.37 Unknown

Allied health assessments

10.45 Was the patient seen by a physiotherapist
Yes / No / Patient declined / Therapist not on staff

10.46 Date

10.47 Unknown

10.50 Was the patient seen by an occupational therapist
Yes / No / Not required / Therapist not on staff

10.51 Date

10.52 Unknown

10.55 Was the patient seen by a speech pathologist
Yes / No / Not required / Therapist not on staff

10.56 Date

10.57 Unknown

10.60 Was the patient seen by a social worker
Yes / No / Not required / Therapist not on staff

10.61 Date

10.62 Unknown

10.65 Was the patient seen by a dietitian
Yes / No / Not required / Therapist not on staff

10.66 Date

10.67 Unknown

10.70 Was the patient seen by a psychologist
Yes / No / Not required / Therapist not on staff

10.71 Date

10.72 Unknown

Communication and support for patient and family/carer

10.75 Did the team meet with the patient to discuss management? *Yes / No / No but met with family*

10.76 Were goals set with input from the team and patient? *Yes / No / No but met with family*

10.79 Did the patient and/or family receive information covering stroke, hospital management, secondary prevention and recovery (e.g. 'My Stroke Journey' booklet)? *Yes / No / Not documented*

10.83 Does the patient have a carer? *Yes / No / Not required*

10.84 Did the carer receive relevant carer training *Yes / No*

10.85 Did the carer receive a support needs assessment (e.g. physical, emotional and social)? *Yes / No*

10.86 Was the carer provided with information about peer support resources prior to patient's discharge? *Yes / No / Not documented*

Complication during hospital admission

Did the patient have any of the following complications on admission:

11.01 Aspiration pneumonia *Yes / No*

11.02 Deep Vein Thrombosis (DVT) *Yes / No*

11.03 Falls *Yes / No*

11.04 Fever *Yes / No*

11.05 Pressure sores e.g. decubitus ulcer *Yes / No*

11.07 Shoulder subluxation *Yes / No*

11.08 Shoulder pain *Yes / No*

11.09 Urinary tract infection *Yes / No*

11.10 Contracture *Yes / No*

11.11 Malnutrition *Yes / No*

Did the patient have any of the following complications during their admission:

11.16 Aspiration pneumonia *Yes / No*

11.17 Deep Vein Thrombosis (DVT) *Yes / No*

11.18 Falls *Yes / No*

11.19 Fever *Yes / No*

11.20 Pressure sores e.g. decubitus ulcer *Yes / No*

11.23 Shoulder pain *Yes / No*

11.24 Shoulder subluxation *Yes / No*

11.28 Malnutrition *Yes / No*

11.32 Urinary tract infection *Yes / No*

11.35 Contracture *Yes / No*

Further rehabilitation and community reintegration

12.04 Was a referral made to rehabilitation? [*Note: this is a generic question; for the purposes of the Rehabilitation Audit, please treat as referral to further rehabilitation on discharge*]

Yes / No / Unknown

12.05 If yes, Type *Inpatient rehabilitation / Outpatient rehabilitation / Community rehabilitation (home based) / Community rehabilitation (day hospital) / Early supported discharge service / Other [Specify]*

12.18 Was the patient made aware of the availability of generic self- management programs before discharge from hospital? *Yes / No*

12.19 Was the patient asked if they wanted to return to driving? *Yes / No / Not documented*

12.20 Did the patient want to return to driving? *Yes / No*

12.22 Was the patient provided with information about the process to return to driving? *Yes /*

No / Not documented

12.23 Was the patient referred for driving assessment *Yes / No / Not documented*

12.25 Did the patient want to return to work? *Yes / No*

12.26 Was the patient informed of services to assist with return to work? *Yes / No / Not documented*

With regard to sexuality, was the patient offered:

12.27 The opportunity to discuss issues relating to sexuality *Yes / No*

12.28 Written information addressing issues relating to sexuality post stroke *Yes / No*

12.29 Was the patient provided with information about peer support (e.g. availability and benefits of local stroke support groups or other sources of peer support such as NSF StrokeConnect online support)? *Yes / No / Not documented*

Secondary prevention

13.00 Is there evidence of patient education about behaviour change for modifiable risk factors prior to discharge? *Yes / No*

Medication prescribed on discharge

13.02 On discharge was the patient prescribed antithrombotics? *Yes / No / Unknown / Contraindicated*

If yes, please specify

13.03 Aspirin *Yes / No*

13.04 Clopidogrel *Yes / No*

13.05 Dipyridamole MR *Yes / No*

13.055 Other antiplatelet drug *Yes / No*

13.06 Warfarin *Yes / No*

13.07 Dabigatran *Yes / No*

13.08 Rivaroxaban *Yes / No*

13.09 Apixaban *Yes / No*

13.10 Other anticoagulant *Yes / No*

13.11 If no, select reason *Patient refused / Under review / Treatment was futile (i.e. advance care directive is enacted or the patient is on a palliative care pathway) / No reason given*

13.12 On discharge was the patient prescribed antihypertensives *Yes / No / Unknown / Contraindicated*

13.20 If no, select reason *Patient refused / Under review / Treatment was futile (i.e. advance care directive is enacted or the patient is on a palliative care pathway) / No reason given*

13.21 On discharge was the patient prescribed lipid-lowering treatment *Yes / No*

Discharge information

14.08 Date of discharge *DD/MM/YYYY*

14.16 What is the discharge destination/mode? *Discharge or transfer to another hospital / Discharge or transfer to a residential aged care service, unless this is the usual place of residence / Statistical discharge – type change / Left against medical advice or discharged at own risk / Died / Other / Usual residence (e.g. home) with supports / Usual residence (e.g. home) without supports / Inpatient rehabilitation / Transitional care service*

14.17 What is the level of support if discharged to private residence? *Lives alone (no formal supports) / Lives alone (formal supports) / Lives with others (no formal supports) / Lives with others (formal supports)*

14.18 Indicate if this is the same level of support as before the stroke *No change from previous / Change from previous / Unknown*

14.19 Is there evidence that a care plan outlining post discharge care in the community was developed with the team and the patient (or family alone if patient has severe aphasia or cognitive impairments)? *Yes / No / Unknown / Not applicable (remains in hospital e.g. inpatient rehabilitation or other acute care)*

14.21 Is there evidence that the general practitioner and or community providers were provided with a copy of the discharge summary? *Yes / No / Not applicable (e.g. inpatient rehab)*

14.22 Was a home assessment carried out? *Yes / No / Not required*

14.24 Did the patient receive the contact details of someone in the hospital for any post-discharge questions? *Yes / No / No but provided to family*

14.25 Functional status on discharge? (mRS)

Scores of 0 through to 6

14.26 Unknown/Derive

14.34 Total Motor FIM score on discharge

14.35 Unknown

14.36 Total Cognitive FIM score on discharge

14.37 Unknown

Appendix 3: Calculations for the Rehabilitation Stroke Services Framework (2013)







Element of service	Indicator(s)
Effective links with acute stroke service providers	9.16 Is there a dedicated person liaising between acute and rehabilitation services? 9.05 Is there a standardised process for assessing suitability for inpatient rehabilitation at your hospital?
Specialised interdisciplinary stroke (or neuro-rehabilitation) team with access to staff education and professional development specific to stroke	9.18 Please identify which of the following health professionals are actively involved in the rehabilitation management of stroke patients at your hospital?*
Co-located stroke beds within a geographically defined unit	9.20 Is there a program for the continuing education of staff relating to the management of stroke? 9.02 Does your site have a dedicated stroke rehabilitation unit with co-located stroke beds within a geographically defined unit?
Standardised and early assessment for neuro-rehabilitation	9.05 Is there a standardised process regarding assessing suitability for inpatient rehabilitation at your hospital? 9.06 Routinely when does the assessment for inpatient rehabilitation occur?#
Written rehabilitation goal setting processes with patients	9.08 Does your site have a formal process for developing and documenting goals with patients? 9.09 How does your hospital usually establish patient-directed goals?^
Routine use of evidence-based guidelines to inform evidence-based therapy for clinicians	9.13 Are there documented processes and systems to support routine use of evidence-based guidelines to inform clinical care? 9.14 Are there documented processes and systems to monitor the routine use of evidence-based guidelines to inform clinical care?
Best practice and evidence-based intensity of therapy for goal related activity with patients	9.15 Are there documented processes and systems to ensure patients receive evidence-based intensity of therapy related to their goals?
Systems for transfer of care, follow-up and re-entry for patients	9.25 Are patients/carers given details of a hospital contact on transfer from hospital to community? 9.22 Does your site have protocols guiding discharge planning for your stroke rehabilitation patients? 9.6 Does your site routinely follow up stroke patients to assess their post stroke needs?
Support for the person with stroke and carer (e.g. carer training, provision of information/education, provision of care plan) to maximise community participation and long-term recovery	9.12 Does your hospital routinely provide patient information prior to discharge? 9.23 Are patients routinely given a discharge care (personal recovery) plan on discharge from hospital? 9.24 Does your site routinely provide carer training to carers requiring it?
Systems that support quality improvement, i.e. regular (at least every two years) review of local audit data by the stroke team to prioritise and drive stroke care improvement	9.27 Over the last 2 years has the stroke team been involved in quality improvement activities that have included collecting and reviewing local stroke data and agreeing on strategies to improve care?

Appendix 4: Technical information regarding key indicator analysis

Variable	Numerator	Denominator
Goals set with input from the team and patient	Total number of patients with stroke who were involved in the process of setting their rehabilitation goals with input from the full multidisciplinary team.	N = All patients with stroke admitted to hospital. <i>Exclusions:</i> Patients with severe cognitive and/or communication difficulties.
Patient's mood assessed during admission	Total number of patients with stroke who received a documented assessment for a mood impairment during their rehabilitation admission.	N = All patients with stroke admitted to hospital
Patient and/or family received information covering stroke, hospital management, secondary prevention and recovery (e.g. My Stroke Journey booklet)	Total number of patients with stroke and/or their families who received relevant information during their rehabilitation admission.	N = All patients with stroke admitted to hospital.
Patient received education about behaviour change for modifiable risk factors prior to discharge	Total number of patients who received risk factor modification education during their rehabilitation admission.	N = All patients with stroke admitted to hospital. <i>Exclusions:</i> Those patients that died during the inpatient admission.
Patient prescribed antihypertensive medication on discharge	Total number of patients who were discharged from inpatient rehabilitation with antihypertensive medication.	N = All patients with stroke who were discharged from hospital. <i>Exclusions:</i> Patients who were deemed contraindicated for treatment and those patients that died during the inpatient admission.
Carer received relevant training	Total number of patients with stroke whose carer(s) have received relevant training during their rehabilitation admission.	N = All patients with stroke who have a documented carer upon their discharge from hospital. <i>Exclusions:</i> Carers of patients with stroke who left against medical advice, were transferred for further inpatient rehabilitation or acute care, or who were discharged to residential care.
Evidence that care plan was developed with the team and patient (or family alone if patient has severe communication or cognitive impairments)	Total number of patients with stroke and/or their families who received a care plan prior to discharge from hospital.	N = All patients with stroke who were discharged from hospital. <i>Exclusions:</i> Those patients where a care plan was deemed not applicable and those patients that died during the inpatient admission.



How to get more involved

-  **Give time** – become a volunteer.
-  **Raise funds** – donate or hold a fundraising event.
-  **Speak up** – join our advocacy team.
-  **Leave a lasting legacy** – include a gift in your Will.
-  **Know your numbers** – check your health regularly.
-  **Stay informed** – keep up-to-date and share our message.

Contact us

-  **1300 194 196**
-  **strokefoundation.org.au**
-  **[/strokefoundation](https://www.facebook.com/strokefoundation)**
-  **[@strokefdn](https://twitter.com/strokefdn)**
-  **[@strokefdn](https://www.instagram.com/strokefdn)**