



**National Stroke Audit**

**Rehabilitation Stroke Services  
2018 Supplement**

[strokefoundation.org.au](http://strokefoundation.org.au)

# Introduction

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The contents of the following supplement should be read in relation to the National Stroke Foundation's National Stroke Audit – Rehabilitation Services Report 2018. This report can be accessed from the Stroke Foundation's new website, InformMe: <https://informme.org.au/stroke-data>





# Appendix 1: Participating Hospitals

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We would like to thank everyone involved at all participating hospitals for their support and hard work on the National Stroke Audit – Rehabilitation Services 2018.

## New South Wales

### Armidale Hospital

Amanda Styles and Jaclyn Birnie

### Ballina District Hospital

Gloria Vann, Kim Hoffman and team

### Balmain Hospital

Indu Nair and team

### Bankstown Lidcombe Hospital

Christine Fuller, Kevin Guo and team

### Bathurst Hospital

Amelia Burton and team

### Belmont Hospital

Perna Keshwan, Colette Sanctuary and team

### Berkeley Vale Private Hospital

Michelle Turner and team

### Braeside Hospital – Rehab

Caitlin Anderson, Kerry Gilsean and team

### Coffs Harbour Base Hospital

Amanda Buzio and team

### Coledale District Hospital

Helen Brooks and team

### Concord Hospital

Renai Pillay and team

### David Berry Hospital

Jacqui Cornell and team

### Greenwich Hospital

Fey-Ching Un and team

### Griffith Base Hospital

Lorraine Maxwell and team

### Hornsby & Ku-ring-gai Hospital

Cesar Tuy, Chanelle Oen and team

### Hunter Valley Private Hospital

Amanda Freund, Jessica Baker and team

### John Hunter Hospital – Rankin Park

Helen Baines and team

### Kurri Kurri Hospital

Sue Skaife, Jennifer Walters, Karen Reid and team

### Lady Davidson Private Hospital

Suellen Fulton and team

### Lourdes Hospital

Kaylene Green and team

### Maclean District Hospital

Louise Massie and team

### Metro Rehabilitation Hospital

Anna Barlow, Emma Scriven and team

### Mona Vale Hospital

Jasmine Gilchrist and team

### Moruya Hospital

Andrea White and team

### Mount Druitt Hospital

Loraine Stephenson and team

### Nepean Hospital

Roslynne Raynard, Elizabeth Sciberras and team

### Port Kembla Hospital

Louise Morrison and team

### Prince of Wales Hospital

Andrew Murray and team

### **Royal Rehab Private**

Cassandra Medcalfe, Michael Tran and team

### **Ryde Hospital**

Sandra Lever and team

### **Sacred Heart Health Service**

Olivia Misa and team

### **Shoalhaven District Memorial Hospital**

Jacqui Cornell and team

### **St George Hospital**

Julie Morrison and team

### **Sutherland Hospital**

Victoria Byiers and team

### **Tamworth Base Hospital**

Sue Simpson, Monique Hourn and team

### **Wagga Wagga Rural Referral Hospital**

Pamela Dendy and team

### **War Memorial Hospital**

Fiona Russell, Keerthana Salprakash and team

### **Westmead Hospital**

Andrew Evans and team

### **Wauchope District Memorial Hospital**

Ann Bodill, Yvonne Carmichael and team

### **Wingham Community Hospital**

Fiona Minett and team

## **Northern Territory**

### **Royal Darwin Hospital**

Howard Flavell and team

## **Queensland**

### **Brighton Health Campus and Services**

Jessica Riggall, Jessica Dennis, Renee Hammond and team

### **Bundaberg Base Hospital**

Sonia Dann and team

### **Cairns Base Hospital**

Dijana Cukanovic-Krebs, Troy Reid and team

### **Eden Rehabilitation Centre**

Chris Bryant and team

### **Gold Coast University Hospital**

Amanda Holborow, Haylee Berrill and team

### **Gympie Hospital**

Rebecca Sjodin and team

### **Ipswich Hospital**

Linda Edwards, Betzy Shaju and team

### **John Flynn Private Hospital**

Esther Forbes, Amelia Pajunen and team

### **Logan Hospital**

Cassandra Wells and team

### **Mackay Base Hospital**

Anne Hooper, Donna Leary and team

### **Maryborough Base Hospital**

Pauline Blaney, Bronwyn Ramsay and team

### **Mater Health Services**

Marie McCaig, Amanda Bromley and Ashley McGuire

### **Prince Charles Hospital**

Catlin Kearney, Amelia Thornton and team

### **Princess Alexandra Hospital**

Phil Aitken, Maria Draper and team

### **Queen Elizabeth II Jubilee Hospital**

Jerry Wong and team

### **Redcliffe Hospital**

Kerrie Garrad, Renee McMillan and team

### **Robina Hospital**

Diane Greenwood, Haylee Berrill and team

### **Rockhampton Hospital**

Sandra Greensill and team

### **Royal Brisbane and Women's Hospital**

Kana Appadurai, Damian Caruana and team

### **Sunshine Coast University Hospital**

Julie Harding, Amanda Baker and team

### **Toowoomba General Hospital**

Timothy Richardson, Arun Raju and team

### **Townsville Hospital**

Carolyn Brickhill, Lynette Paul, Toni McCormack and team

## **South Australia**

### **Calvary Rehabilitation Hospital**

Judy Matthews, Julie Eastway and team

### **Flinders Medical Centre**

Justin Prendergast and team

### **Griffith Rehabilitation Hospital**

Lauri Wild, Anne Betham and team

### **Hampstead Rehabilitation Centre**

Fern McKinnel, Rachel Harling, Margaret Manning and team

### **Modbury Hospital**

Meredith Jolly and team

### **Mount Gambier Hospital**

Marcy Lopriore and team

### **Riverland Regional Health Service – Berri Campus**

Bridgette McKenzie and team

### **Whyalla Hospital**

Natalie Hale and team

## **Tasmania**

### **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

## **Victoria**

### **Albury Wodonga Health – Wodonga Campus**

Vanessa Crosby and Veryan McQualter

### **Angliss Hospital**

Shae Cooke, Victoria Stewart and team

### **Bairnsdale Hospital**

Suzanne McArthur, Faye Bone and team

### **Barwon Health – McKellar Centre**

Natasha Selenitsch and team

### **Bendigo Hospital**

Leanne Muns, Sian Knight and team

### **Broadmeadows Health Service**

Vincent Lavery and team

### **Cabrini Health**

Suzy Goodman and team

### **Casey Hospital**

Marie Ellul and team

### **Caulfield General Hospital**

Catherine Brooks, Kate Lawlor and team

### **Central Gippsland Health Service**

Sue Roberts, Maree O'Connor and team

### **Dorset Rehabilitation Centre**

Janneane Connelly

### **Echuca Hospital**

Lauren Arthurson and team

### **Epworth Rehabilitation – Brighton**

Debra Perlow

### **Goulburn Valley Health – Shepparton**

Bronwyn Brown, Anne Robinson, Melanie Brown and team

### **Hamilton Base Hospital**

Louise Starkie and team

### **Heidelberg Repatriation Hospital**

Tavia Rudd and team

### **Kingston Centre**

Whitney Lipman, Ellen Goh and team

### **Latrobe Regional Hospital**

Janet May, Ailsa Clarke and team

### **Mildura Base Hospital**

Bronwyn Daymond

### **North Eastern Rehabilitation Centre**

Jini Lim, Angela Clancey and team

### **Northeast Health Wangaratta**

Lyn Malone and team

### **Peninsula Health – Golf Links Rd Rehab Unit 1**

Carol Gore and team

### **Peninsula Health – Rosebud Hospital**

Janice Lovett and team

### **Peter James Centre**

Anuschka Toal and team

### **Royal Melbourne Hospital**

Fary Khan

### **Royal Talbot Rehabilitation Centre**

Joanna Cameron and team

### **St John of God Bendigo**

Talia Cantwell, Debbie Kesper and team

### **St Vincent's Hospital Victoria**

Meaghan MacKenzie and team

### **St Vincent's St George's Health Service**

Anne Ashman and team

### **Sunshine Hospital – Western Health**

Durga Shrestha and team

### **The Mornington Centre**

Lisa Done and team

### **Warrnambool Base Hospital**

Patrick Groot and team

### **Wimmera Base Hospital – Horsham**

Jarrold Hunter and team

## Western Australia

### **Albany Hospital**

Karleen Llewellyn, Bronte Lloyd and team

### **Armadale Memorial Hospital**

Alexandra Dray and team

### **Bentley Health Service – Bentley Hospital**

Kieran English and team

### **Bunbury Hospital**

Michaela Eaton, Karen Gifford and team

### **Fiona Stanley Hospital**

Jayne Martin, Cheryl Mowat and team

### **Fremantle Hospital**

Alicia Massarotto, John Harris and team

### **Geraldton Regional Hospital**

Prue Matthews and team

### **Joondalup Health Campus**

Michelle Young and team

### **Osborne Park Hospital**

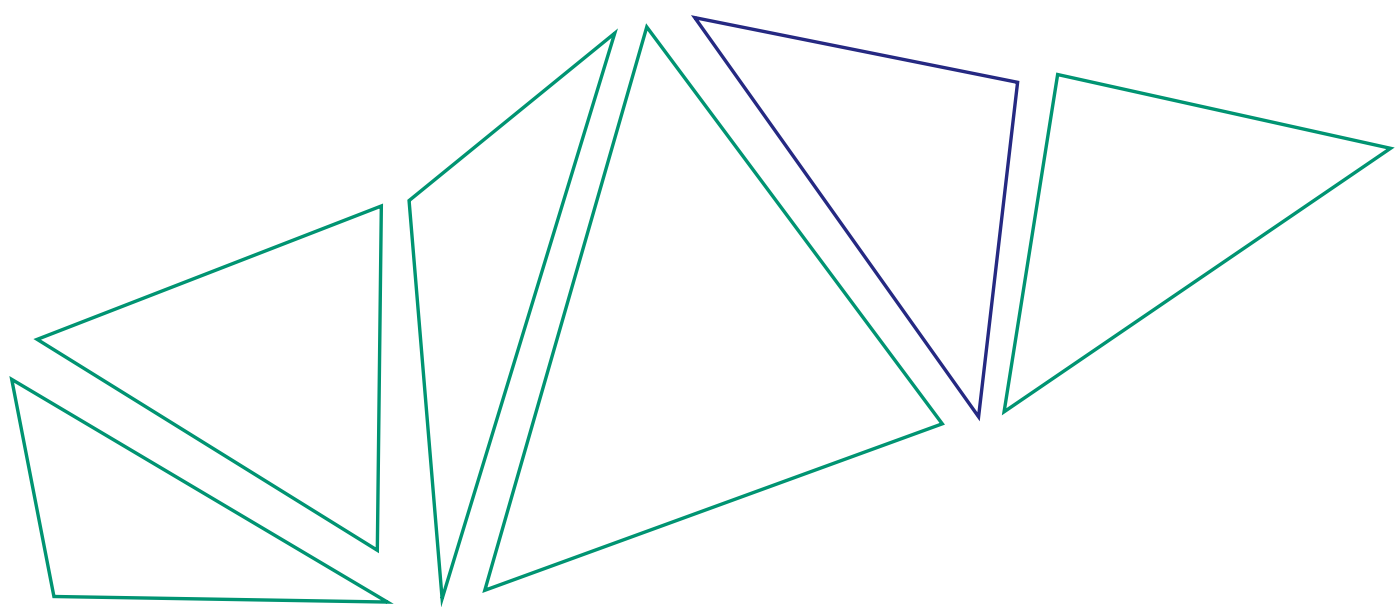
Kien Chan, James Hanna and team

### **Rockingham General Hospital**

Dr Helen Thomas, Joanne Hughes and team

### **St John of God Midland Public Hospital**

Tim Bates, Lynda Southwell and team



# Appendix 2: Organisational Survey and Clinical Audit Questions

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## 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) / Comprehensive Stroke Unit*
- 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
- f. 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**
- 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 group circuit classes? **Yes / No**
- 1.11 How long on average do patients with motor impairments undertake active physical therapy (physiotherapy and/or OT) per day (at least five times per week)? This should not include time spent watching others.
- a. <1hr
  - b. 1hr
  - c. 2hr
  - d. 3hr
  - e. >3 hrs
- 1.12 How many days a week does your service provide active therapy?
- a. 7 days per week
  - b. 6 days per week
  - c. 5 days per week
  - d. 3-4 days per week
  - e. <3 days per week
- 1.13 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
- 1.14 Are there documented processes and systems to support routine use of evidence-based guidelines to inform clinical care? **Yes / No**
- 1.15 Are there documented processes and systems to monitor the routine use of evidence-based guidelines to inform clinical care? **Yes / No**
- 1.16 Are there documented processes and systems to ensure patients receive evidence-based intensity of therapy related to their goals? **Yes / No**
- 1.17 Is there a dedicated person liaising between acute and rehabilitation services? **Yes / No**



- 1.18 Is there regular meetings between acute and rehabilitation services? **Yes / No**  
(if yes) How often are these meetings held per month?
- a. < once per month
  - b. 1
  - c. 2
  - d. 3
  - e. 4 or more
- 1.19 Is there onsite telehealth facility which has been utilised for clinical decision making within the last six months? **Yes / No**
- 1.20 Please identify which of the following health professionals are actively involved in the rehabilitation management of stroke patients at your hospital?
- Rehabilitation physician **Yes / No**
- Geriatrician **Yes / No**
- General medical physician **Yes / No**
- Neurologist **Yes / No**
- General practitioner/visiting medical officers **Yes / No**
- Rehabilitation nurse **Yes / No**
- Clinical nurse consultant **Yes / No**
- Clinical nurse specialist **Yes / No**
- Physiotherapist **Yes / No** – *If yes, how many days per week*
- Speech pathologist **Yes / No** – *If yes, how many days per week*
- Dietitian **Yes / No**
- Social worker **Yes / No**
- Occupational therapist **Yes / No** – *If yes, how many days per week*
- Clinical psychology **Yes / No**
- Neuropsychologist **Yes / No**
- Recreational therapist **Yes / No**
- Diversional therapist **Yes / No**
- Allied health assistant/therapy assistant **Yes / No** – *If yes, how many days per week*
- Medical resident **Yes / No**
- Stroke liaison officer/stroke care coordinator **Yes / No / Other** [Specify]

1.21 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.

*Rehabilitation physician*

*Geriatrician*

*General medical physician*

*Neurologist*

*General practitioner/visiting medical officers*

1.22 Does your site provide the following community rehabilitation services:

a. Centre-based rehabilitation (e.g. Outpatient rehabilitation or day hospital) **Yes / No**

b. Community-based rehabilitation provided in the home **Yes / No**

c. Stroke specific Early Supported Discharge **Yes / No**

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

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

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

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

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

1.28 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**

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

# Clinical Audit

### Auditor Information

- 1.000 Hospital name (auto-populated)
- 1.020 Auditor name (auto-populated)
- 1.030 Auditor Email (auto-populated)
- 1.050 Auditor discipline (auto-populated)

### Patient demographics

- Patient details*
- 2.000 Patient record ID (auto-created)
  - 2.090 Date of birth
  - 2.100 Age
  - 2.130 Gender
  - 2.170 Interpreter needed
  - 2.180 Is the patient of Aboriginal/Torres Strait Islander origin?

Admission and transfer information	
<i>Admission details</i>	
4.000	Onset date
4.010	Date unknown
4.340	What date was the patient admitted to the inpatient rehabilitation facility?
<i>Intra hospital transfers</i>	
4.660	Prior to rehabilitation, where has the patient come from? (Stroke unit / Acute inpatient ward / Other rehabilitation ward / General practitioner referral / Other / Unknown)
4.670	Where was this patient treated during inpatient rehabilitation? (Dedicated stroke rehabilitation unit / Neurorehabilitation unit / Combined acute and rehabilitation unit / Mixed rehabilitation ward)

Other clinical information	
<i>Impairments on admission (please answer this as admission to rehabilitation)</i>	
On admission were any of the following impairments present?	
9.000	Sensory deficit
9.010	Cognitive deficit
9.020	Visual deficit
9.030	Perceptual deficit
9.040	Speech and communication deficit
9.050	Hydration problems
9.060	Nutrition problems
9.061	Arm deficit

<i>Hydration and nutrition</i>	
9.270	Was the patient at risk of malnutrition?
<i>Management included:</i>	
9.330	Ongoing monitoring by a dietitian
9.340	Nutritional supplementation for those whose nutritional status was poor or deteriorating
9.350	Alternative feeding
9.355	Type ( <i>NG feeding / PEG</i> )

<i>Mobilisation</i>	
9.360	Was the patient able to walk independently on admission? (i.e. may include walking aid, but without assistance from another person)
<i>Management included</i>	
9.410	Tailored, repetitive practice of walking (or components of walking) Yes / No
9.420	Cueing of cadence Yes / No
9.430	Mechanically assisted gait (via treadmill or other mechanical or robotic device) Yes / No
9.440	Joint position biofeedback Yes / No
9.450	Other therapy Yes / No

<i>Arm deficit</i>	
<i>Management included:</i>	
9.510	Constraint-induced movement therapy (in selected people) Yes / No
9.520	Repetitive task-specific training Yes / No
9.530	Mechanically assisted training Yes / No
9.540	Other therapy Yes / No

<i>Continence</i>	
9.550	Was the patient assessed for urinary incontinence within 72hrs? [ <i>Note: this is a generic question; for the purposes of the Rehabilitation Audit, please treat as 72 hours within admission to rehabilitation</i> ]
9.611	Was the patient incontinent of urine during their rehabilitation care? Yes / No

9.620	Was the patient incontinent of urine during their rehabilitation care? Yes / No
9.630	Was a prompted scheduled voiding regime documented?
9.640	Did the patient have urinary retention?
9.650	Was intermittent catheterisation documented?
9.660	Was a urinary incontinence management plan documented?

<i>Mood</i>	
9.740	Was the patient's mood assessed?
9.780	Did the patient have a mood impairment ( <i>depression, emotional lability or anxiety</i> )?
<i>Management included:</i>	
9.790	Antidepressants Yes / No
9.800	Psychological (e.g. Cognitive-behavioural) interventions Yes / No
9.810	Other therapy Yes / No
9.820	No therapy provided Yes / No

<i>ADL</i>	
9.830	Did the patient have difficulty with Activities of Daily Living
<i>Management included:</i>	
9.840	Task specific practice Yes / No
9.850	Trained use of appropriate aids Yes / No
9.860	Other Yes / No

<i>Aphasia</i>	
9.870	Did the patient have aphasia
<i>Management included:</i>	
9.880	Alternative means of communication (e.g. gestures, drawing, writing, use of augmentative and alternative communication devices) Yes / No
9.890	Phonological & semantic interventions Yes / No
9.900	Constraint-induced language therapy Yes / No

9.910	Supported conversation techniques Yes / No
9.920	Delivery of therapy programs via computer Yes / No
9.930	Group therapy (e.g. conversation groups) Yes / No
9.940	Other therapy Yes / No

#### Neglect

9.950	Did the patient have neglect/inattention
<b>Management included:</b>	
9.960	Visual scanning training with sensory stimulation Yes / No
9.970	Prism adaptation Yes / No
9.980	Eye patching Yes / No
9.990	Simple cues to draw attention to the affected side Yes / No
10.000	Mental imagery training or structured feedback Yes / No
10.010	Other therapy Yes / No

#### Dependency within 72 hours of admission

10.310	First known modified Rankin Scale ( <i>within 72 hours of admission to rehabilitation</i> ) Scores of 0 through to 6
10.320	Unknown/derive
10.330	Is the patient alive?
10.340	Can the patient walk on their own (i.e. without the assistance of another person, but may include walking aid)?
10.350	If the patient can't walk on their own can they walk if someone is helping them?
10.360	If the patient can walk on their own (includes walking aids) do they help with simple usual personal activities (toilet, bathing, dressing, cooking, household tasks, simple finances)?
10.370	If the patient can perform simple personal activities do they need help with more complex usual activities (driving, golf, finances, household bills, work tasks)?
10.380	If the patient has no disability do they have any symptoms?

10.390	Total Motor FIM score on admission
10.400	Unknown
10.410	Total Cognitive FIM score on admission
10.420	Unknown

#### Allied health assessments

10.450	Was the patient seen by a physiotherapist Yes / No / Not required / Patient declined / Therapist not on staff
10.460	Date
10.470	Unknown
10.500	Was the patient seen by an occupational therapist Yes / No / Not required / Patient declined / Therapist not on staff
10.510	Date
10.520	Unknown
10.550	Was the patient seen by a speech pathologist Yes / No / Not required / Patient declined / Therapist not on staff
10.560	Date
10.570	Unknown
10.600	Was the patient seen by a social worker Yes / No / Not required / Patient declined / Therapist not on staff
10.610	Date
10.620	Unknown
10.650	Was the patient seen by a dietitian Yes / No / Not required / Patient declined / Therapist not on staff
10.660	Date
10.670	Unknown
10.700	Was the patient seen by a psychologist Yes / No / Not required / Patient declined / Therapist not on staff
10.710	Date
10.720	Unknown

#### Communication and support for patient and family/carer

10.750	Did the team meet with the patient to discuss management? Yes / No / No but met with family
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10.760	Were goals set with input from the team and patient? Yes / No / No but met with family
10.790	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
10.830	Does the patient have a carer? Yes / No / Not required
10.840	Did the carer receive relevant carer training Yes / No
10.850	Did the carer receive a support needs assessment (e.g. physical, emotional and social)? Yes / No
10.860	Was the carer provided with information about peer support resources prior to patient's discharge? Yes / No / Not documented

### Complication during hospital admissions

	Did the patient have any of the following complications on admission to rehabilitation:
11.010	Aspiration pneumonia Yes / No
11.020	Deep Vein Thrombosis (DVT) Yes / No
11.030	Falls Yes / No
11.040	Fever Yes / No
11.050	Pressure sores e.g. decubitus ulcer Yes / No
11.070	Shoulder subluxation Yes / No
11.080	Shoulder pain Yes / No
11.090	Urinary tract infection Yes / No
11.100	Contracture Yes / No
11.110	Malnutrition Yes / No
	Did the patient have any of the following complications during their admission to rehabilitation:
11.160	Aspiration pneumonia Yes / No
11.170	Deep Vein Thrombosis (DVT) Yes / No
11.180	Falls Yes / No
11.190	Fever Yes / No
11.200	Pressure sores e.g. decubitus ulcer Yes / No
11.230	Shoulder pain Yes / No
11.240	Shoulder subluxation Yes / No

11.280	Malnutrition Yes / No
11.290	New onset atrial fibrillation Yes / No
11.320	Urinary tract infection Yes / No
11.350	Contracture Yes / No

### Further rehabilitation and community re-integration

12.040	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
12.051	If yes, Type Inpatient rehabilitation / Outpatient rehabilitation / Community rehabilitation home based / Community rehabilitation day hospital / Early supported discharge service
12.06	Other [Specify]
12.180	Was the patient made aware of the availability of generic self-management programs before discharge from hospital? Yes / No
12.190	Was the patient asked if they wanted to return to driving? Yes / No / Not documented
12.191	Reason (if 'no') Did not drive prior to stroke / Patient too ill to participate / Severe cognitive impairment / Other
12.200	Did the patient want to return to driving? Yes / No
12.220	Was the patient provided with information about the process to return to driving? Yes / No / Not documented
12.230	Was the patient referred for driving assessment Yes / No / Not documented
12.231	Was the patient employed before the stroke onset? Yes / No
12.240	Was the patient asked if they wanted to return to work? Yes / No / Not documented

12.250	Did the patient want to return to work? Yes / No
12.260	Was the patient informed of services to assist with return to work? Yes / No / Not documented
	With regard to sexuality, was the patient offered:
12.270	The opportunity to discuss issues relating to sexuality Yes / No
12.280	Written information addressing issues relating to sexuality post stroke Yes / No
12.290	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 Stroke Foundation StrokeConnect online support)? Yes / No / Not documented

### Secondary prevention

13.000	Is there evidence of patient education about behaviour change for modifiable risk factors prior to discharge? Yes / No
	<i>Medication prescribed on discharge</i>
13.020	On discharge was the patient prescribed antithrombotics Yes / No / Unknown / Contraindicated
	If yes, please specify
13.030	Aspirin Yes / No
13.040	Clopidogrel Yes / No
13.050	Dipyridamole MR Yes / No
13.055	Other antiplatelet drug Yes / No
13.060	Warfarin Yes / No
13.070	Dabigatran Yes / No
13.080	Rivaroxaban Yes / No
13.090	Apixaban Yes / No
13.100	Other anticoagulant Yes / No

13.110	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
13.120	On discharge was the patient prescribed antihypertensives Yes / No / Unknown / Contraindicated
13.200	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
13.210	On discharge was the patient prescribed lipid-lowering treatment Yes / No
13.240	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

### Discharge information

14.080	Date of discharge DD/MM/YYYY
14.150	What is the discharge ICD 10 Classification Code?
14.160	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



14.170	What is the level of support if discharged to private residence? <i>Lives alone (no formal supports) / Lives alone (formal supports) / Lives with others (no formal supports) / Lives with others (formal supports)</i>
14.180	Indicate if this is the same level of support as before the stroke <i>No change from previous / Change from previous / Unknown</i>
14.190	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)? <i>Yes / No / Unknown / Not applicable (remains in hospital e.g. inpatient rehabilitation or other acute care)</i>
L14.20	If yes, did this include:
14.200	Patient
14.201	Family/carer
14.210	Is there evidence that the general practitioner and or community providers were provided with a copy of the discharge summary? <i>Yes / No / Not applicable (e.g. inpatient rehab)</i>
14.220	Was a home assessment carried out? <i>Yes / No / Not required</i>
14.240	Did the patient receive the contact details of someone in the hospital for any post-discharge questions? <i>Yes / No / No but provided to family</i>

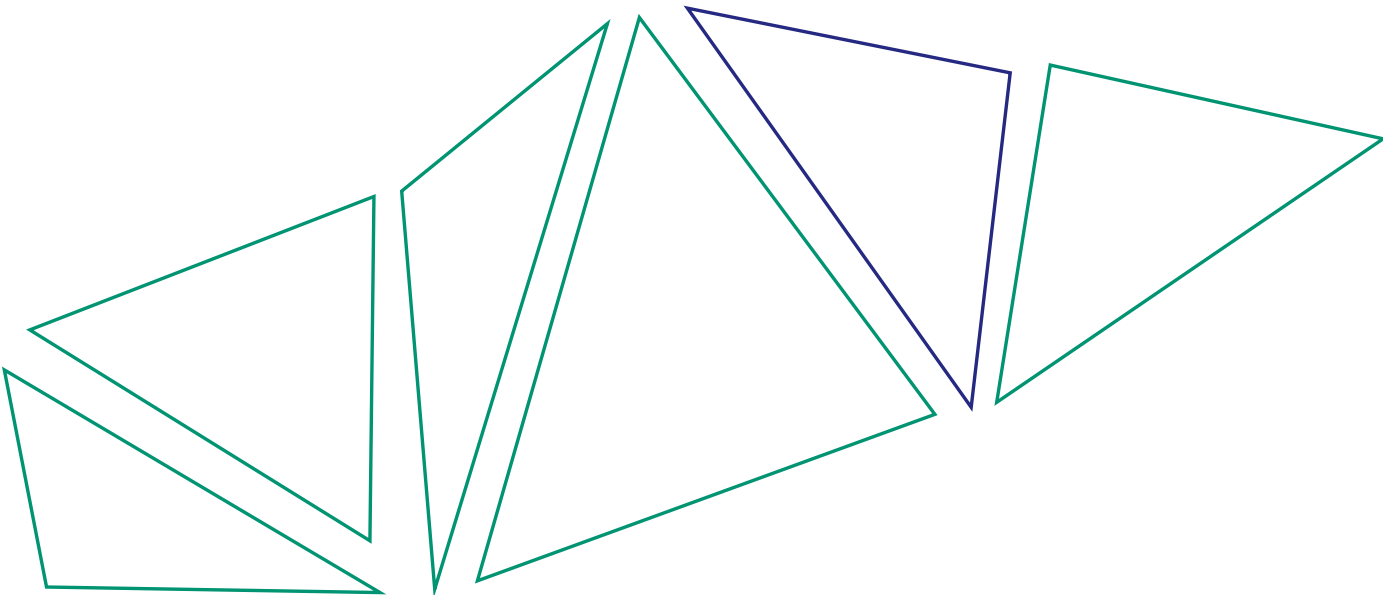
14.250	Functional status on discharge? (mRS) <i>Scores of 0 through to 6</i>
14.260	Unknown/Derive
14.265	Is the patient alive?
14.270	Can the patient walk on their own (ie without the assistance of another person, but may include walking aid)?
14.280	If the patient can't walk on their own can they walk if someone is helping them?
14.290	If the patient can walk on their own (includes walking aids) do they help with simple usual personal activities (toilet, bathing, dressing, cooking, household tasks, simple finances)?
14.300	If the patient can perform simple personal activities do they need help with more complex usual activities (driving, golf, finances, household bills, work tasks)?
14.310	If the patient has no disability do they have any symptoms?
14.340	Total Motor FIM score on discharge
14.350	Unknown
14.360	Total Cognitive FIM score on discharge
14.370	Unknown
14.360	Total Cognitive FIM score on discharge
14.370	Unknown



## Appendix 3: Calculations from the Organisational Survey for the *Rehabilitation Stroke Services Framework (2013)*

Element of service	Indicator(s)
Effective links with acute stroke service providers	<p>9.16 Is there a dedicated person liaising between acute and rehabilitation services?</p> <p>9.05 Is there a standardised process for assessing suitability for inpatient rehabilitation at your hospital?</p>
Specialised interdisciplinary stroke (or neuro- rehabilitation) team with access to staff education and professional development specific to stroke	<p>9.18 Please identify which of the following health professionals are actively involved in the rehabilitation management of stroke patients at your hospital?*</p> <p>9.20 Is there a program for the continuing education of staff relating to the management of stroke?</p>
Co-located stroke beds within a geographically defined unit	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	<p>9.05 Is there a standardised process regarding assessing suitability for inpatient rehabilitation at your hospital?</p> <p>9.06 Routinely when does the assessment for inpatient rehabilitation occur?#</p>
Written rehabilitation goal setting processes with patients	<p>9.08 Does your site have a formal process for developing and documenting goals with patients?</p> <p>9.09 How does your hospital usually establish patient-directed goals?^</p>
Routine use of evidence-based guidelines to inform evidence-based therapy for clinicians	<p>9.13 Are there documented processes and systems to support routine use of evidence-based guidelines to inform clinical care?</p> <p>9.14 Are there documented processes and systems to monitor the routine use of evidence-based guidelines to inform clinical care?</p>
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?

<p><b>Systems for transfer of care, follow-up and re-entry for patients</b></p>	<p>9.25 Are patients/carers given details of a hospital contact on transfer from hospital to community?</p> <p>9.22 Does your site have protocols guiding discharge planning for your stroke rehabilitation patients?</p> <p>9.6 Does your site routinely follow up stroke patients to assess their post stroke needs?</p>
<p><b>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</b></p>	<p>9.12 Does your hospital routinely provide patient information prior to discharge?</p> <p>9.23 Are patients routinely given a discharge care (personal recovery) plan on discharge from hospital?</p> <p>9.24 Does your site routinely provide carer training to carers requiring it?</p>
<p><b>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</b></p>	<p>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?</p>








# Appendix 4: Technical information regarding key indicator analysis from the Clinical Audit Data

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.	<b>N</b> = All patients with stroke admitted to hospital.  Exclusions: 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.	<b>N</b> = 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.	<b>N</b> = 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.	<b>N</b> = All patients with stroke admitted to hospital.  Exclusions: 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.	<b>N</b> = All patients with stroke who were discharged from hospital.  Exclusions: 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.	<b>N</b> = All patients with stroke who have a documented carer upon their discharge from hospital.  Exclusions: 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.	<b>N</b> = All patients with stroke who were discharged from hospital.  Exclusions: 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

-  **StrokeLine 1800 STROKE (1800 787 653)**
-  **[strokefoundation.org.au](http://strokefoundation.org.au)**
-  **[/strokefoundation](https://www.facebook.com/strokefoundation)**
-  **[@strokefdn](https://twitter.com/strokefdn)**
-  **[@strokefdn](https://www.instagram.com/strokefdn)**