Supporting Information

Factors included in the univariable analyses

This material was part of the submitted manuscript and has been peer reviewed.

Table 1. Univariable analysis of associations between patient and organisational factors and receiving goal-directed rehabilitation during acute admission

Factor	Odds ratio (95% confidence interval)	P
Patient factors		
Age	0.98 (0.98–0.99)	< 0.001
Sex	1.01 (0.86–1.19)	0.89
Requires interpreter	0.91 (0.64–1.29)	0.58
Aboriginal or Torres Strait Islander background	1.12 (0.69–1.83)	0.65
Treated on stroke unit	3.61 (2.89–4.50)	< 0.001
Diagnosis of dementia	0.63 (0.47–0.85)	0.002
Other serious illness influencing prognosis or management of stroke	1.03 (0.83–1.29)	0.78
Independent pre-stroke	0.86 (0.71–1.04)	0.11
Living home alone or with others pre-stroke	2.18 (1.64–2.91)	< 0.001
Received intravenous thrombolysis	2.12 (1.38–3.24)	0.001
Sensory deficit	1.35 (1.13–1.62)	0.001
Cognitive deficit	1.55 (1.27–1.88)	< 0.001
Visual deficit	1.31 (1.08–1.59)	0.006
Perceptual deficit	2.03 (1.59–2.59)	< 0.001
Speech/communication impairment	1.45 (1.23–1.71)	0.000
Hydration problems	1.26 (0.95–1.69)	0.10
Nutrition problems	1.42 (1.09–1.86)	0.011
Arm deficit	1.96 (1.65–2.31)	< 0.001
Incontinent of urine or required urinary catheter	1.57 (1.29–1.90)	< 0.001
Independent on admission (modified Rankin Scale score < 2)	0.28 (0.23–0.34)	< 0.001
Seen by physiotherapist*	3.25 (2.52–4.20)	< 0.001
Seen by occupational therapist*	2.74 (2.24–3.35)	< 0.001
Seen by speech pathologist*	1.87 (1.57–2.22)	< 0.001
Team met with patient to discuss management	2.79 (2.19–3.55)	< 0.001
Goals set with patient/family	9.11 (7.24–11.4)	< 0.001
Information provided to patient/family	2.71 (2.21–3.33)	< 0.001
Does the patient have a carer	1.76 (1.41–2.19)	< 0.001
Organisational factors		
Hospital has a specialist stroke unit	3.49 (2.19–5.59)	< 0.001
Hospital has co-located stroke beds within geographically defined unit	3.60 (2.18–5.96)	< 0.001
Hospital has protocols for referral to physiotherapy[†]	3.57 (0.92–13.8)	0.07
Hospital has protocol for referral to occupational therapy[†]	3.57 (0.92–13.8)	0.07
Hospital has protocol for referral to speech pathology[†]	3.57 (0.92–13.8)	0.07
Hospital has clinical care pathway for stroke	2.12 (1.23–3.63)	0.007
Regular multidisciplinary meetings about stroke patients	1.62 (0.64–4.08)	0.31
Site has access to ongoing inpatient rehabilitation	1.30 (0.60–2.81)	0.50
Site has access to outpatient rehabilitation/day hospital	1.06 (0.48–2.34)	0.89
Site has access to rehabilitation at home or early supported discharge	1.10 (0.60–2.01)	0.77
Patients/families routinely involved in clinical management	2.91 (0.79–10.7)	0.11
Patients/families routinely involved in goal setting	1.57 (0.91–2.71)	0.10
Patients/families routinely involved in planning for discharge	0.36 (0.37–3.49)	0.38
Continuing professional education about stroke	2.15 (1.19–3.89)	0.012
Stroke team involved in quality improvement activities during past 2 years	1.65 (0.97–2.81)	0.07

* Significant collinearity; seen by physiotherapist used as representative variable for seen by allied health professional in multivariable analysis.

† Significant collinearity; protocol for referral to physiotherapy used as representative variable for referral to allied health in multivariable analysis.

Table 2. Univariable analysis of associations between patient and organisational factors and being assessed for ongoing rehabilitation needts

Factor	Odds ratio (95% confidence interval)	P
Patient factors		
Age	0.99 (0.98–0.99)	< 0.001
Sex	0.93 (0.80–1.07)	0.31
Requires interpreter	1.09 (0.79–1.50)	0.61
Aboriginal or Torres Strait Islander background	1.00 (0.64–1.56)	1.0
Treated on stroke unit	2.86 (2.32–3.54)	< 0.001
Diagnosis of dementia	0.75 (0.56–0.99)	0.040
Other serious illness influencing prognosis or management of stroke	1.22 (1.00–1.49)	0.050
Independent pre-stroke	0.81 (0.69–0.96)	0.014
Living home alone or with others pre-stroke	2.08 (1.57–2.75)	< 0.001
Received intravenous thrombolysis	1.48 (1.08–2.03)	0.014
Sensory deficit	1.24 (1.06–1.46)	0.007
Cognitive deficit	1.54 (1.30–1.82)	< 0.001
Visual deficit	1.28 (1.08–1.52)	0.004
Perceptual deficit	2.06 (1.68–2.54)	< 0.001
Speech/communication impairment	1.78 (1.53–2.06)	< 0.001
Hydration problems	1.87 (1.45–2.42)	< 0.001
Nutrition problems	1.95 (1.53–2.49)	< 0.001
Arm deficit	2.03 (1.75–2.36)	< 0.001
Incontinent of urine (or required urinary catheter)	2.01 (1.70–2.38)	< 0.001
Independent on admission (modified Rankin Scale score < 2)	0.19 (0.16–0.23)	< 0.001
Seen by physiotherapist*	11.8 (8.06–17.2)	< 0.001
Seen by occupational therapist*	7.47 (5.74–9.72)	< 0.001
Seen by speech pathologist*	4.11 (3.33–5.07)	< 0.001
Team met with patient to discuss management	2.24 (1.86–2.95)	< 0.001
Goals set with patient/family	4.56 (3.67–5.66)	< 0.001
Information provided to patient/family	2.38 (2.00–2.84)	< 0.001
Patient has a carer	1.49 (1.24–1.80)	< 0.001
Organisational factors		
Hospital has a specialist stroke unit	0.66 (0.55–0.80)	0.003
Hospital has co-located stroke beds within geographically defined unit	1.70 (1.06–2.71)	0.027
Hospital has protocols for referral to physiotherapy	1.71 (0.52–5.63)	0.38
Hospital has protocols for referral to occupational therapy	1.71 (0.52–5.63)	0.38
Hospital has protocols for referral to speech pathology	1.71 (0.52–5.63)	0.38
Hospital has clinical care pathway for stroke	1.38 (0.86–2.20)	0.18
Regular multidisciplinary meetings about stroke patients	1.70 (0.76–3.81)	0.20
Site has access to ongoing inpatient rehabilitation	1.67 (0.86–3.24)	0.13
Site has access to outpatient rehabilitation/day hospital	2.21 (1.07–4.15)	0.030
Site has access to rehabilitation at home or early supported discharge	0.94 (0.56–1.58)	0.83
Patients/families routinely involved in clinical management	4.49 (1.47–13.7)	0.008
Patients/families routinely involved in goal setting	0.89 (0.56–1.42)	0.62
Patients/families routinely involved in planning for discharge	14.5 (1.93–109)	0.009
Continuing professional education about stroke	1.39 (0.83–2.33)	0.21
Stroke team involved in quality improvement activities during past 2 years	1.96 (1.26–3.05)	0.003

* Significant collinearity, seen by physiotherapist used as representative variable for seen by allied health professional in multivariable analysis.

Table 3. Univariable analysis of association between patient and organisational factors and accessing ongoing rehabilitation

Factor	Odds ratio (95% confidence interval)	P
Patient factors		
Age	0.99 (0.99–1.00)	0.014
Sex	1.12 (0.96–1.29)	0.14
Requires interpreter	0.85 (0.62–1.19)	0.34
Aboriginal or Torres Strait Islander background	0.78 (0.49–1.23)	0.28
Treated on stroke unit	2.30 (1.84–2.87)	< 0.001
Diagnosis of dementia	0.48 (0.35–0.66)	< 0.001
Other serious illness influencing prognosis or management of stroke	0.96 (0.79–1.17)	0.71
Independent pre-stroke	0.98 (0.84–1.16)	0.85
Living home alone or with others pre-stroke	2.09 (1.53–2.84)	< 0.001
Received intravenous thrombolysis	1.47 (1.09–1.98)	0.012
Sensory deficit	1.28 (1.10–1.50)	0.002
Cognitive deficit	1.42 (1.21–1.67)	< 0.001
Visual deficit	1.29 (1.09–1.52)	0.003
Perceptual deficit	1.77 (1.46–2.15)	< 0.001
Speech/communication impairment	1.68 (1.45–1.94)	< 0.001
Hydration problems	1.61 (1.27–2.05)	< 0.001
Nutrition problems	1.57 (1.25–1.96)	< 0.001
Arm deficit	2.09 (1.79–2.43)	< 0.001
Incontinent of urine (or required urinary catheter)	1.72 (1.46–2.02)	< 0.001
Independent on admission	0.16 (0.13–0.20)	< 0.001
Seen by physiotherapist*	1.81 (1.39–2.35)	< 0.001
Seen by occupational therapist*	1.68 (1.37–2.06)	< 0.001
Seen by speech pathologist*	1.58 (1.32–1.88)	< 0.001
Team met with patient to discuss management	1.80 (1.43–2.27)	< 0.001
Goals set with patient/family	2.97 (2.38–3.71)	< 0.001
Information provided to patient/family	1.78 (1.49–2.12)	< 0.001
Patient has a carer	1.21 (1.01–1.45)	0.040
Organisational factors		
Hospital has a specialist stroke unit	1.47 (0.95–2.27)	0.09
Hospital has co-located stroke beds within geographically defined unit	1.54 (0.97–2.45)	0.07
Hospital has protocols for referral to physiotherapy	1.52 (0.81–2.84)	0.19
Hospital has protocols for referral to occupational therapy	1.52 (0.81–2.84)	0.19
Hospital has protocols for referral to speech pathology	1.52 (0.81–2.84)	0.19
Hospital has clinical care pathway for stroke	1.06 (0.67–1.67)	0.81
Regular multidisciplinary meetings about stroke patients	1.32 (0.60–2.92)	0.49
Site has access to ongoing inpatient rehabilitation	1.50 (0.79–2.86)	0.22
Site has access to outpatient rehabilitation/day hospital	1.62 (0.83–3.16)	0.16
Site has access to rehabilitation at home or early supported discharge	1.85 (1.13–3.04)	0.015
Patients/families routinely involved in clinical management	2.26 (0.74–6.89)	0.15
Patients/families routinely involved in goal setting	0.81 (0.52–1.27)	0.36
Patients/families routinely involved in planning for discharge	2.27 (0.37–13.8)	0.37
Continuing professional education about stroke	1.25 (0.75–2.08)	0.38
Stroke team involved in quality improvement activities during past 2 years	1.50 (0.96–2.32)	0.07

* Significant collinearity, seen by physiotherapist used as representative variable for seen by allied health professional in multivariable analysis.