

Table SI. Overview of practice variation (PV) in 23 elements of stroke rehabilitation in 4 rehabilitation centres (RCs) in the Netherlands

		RC1	RC2	RC3	RC4	PV
Admission/discharge-related						
<i>1. Regional stroke service's agreement</i>						
1a	Regional stroke service's agreement present?	Yes	Yes	Yes	Yes	No
1b	Maximum number of days between stroke onset and admission to RC	14	5	8	9	Yes
<i>2. Admission criteria inpatient rehabilitation</i>						
2a.	Admission criteria inpatient rehabilitation present?	Yes	Yes	Yes	Yes	No
Patient:						
2b.1	has complex impairments	V	V	V	V	No
2b.2	requires treatment by a multidisciplinary team	V	V	V	V	No
2b.3	has sufficient learning potential	V	V	V	V	No
2b.4	is expected to return to former living situation	V	V	V	V	No
2b.5	requires intensive 24 h rehabilitation care	V	–	–	–	Yes
2b.6	is expected to have lasting impairments	V	–	V	–	Yes
2b.7	is 18 years or older	–	V	–	–	Yes
2b.8	is capable of fast-paced rehabilitation	–	V	V	–	Yes
2b.9	is able to be out of bed at least twice a day for 1 h	V	–	–	–	Yes
2b.10	has a life expectancy of more than 6 months	V	–	–	–	Yes
<i>3. Admission criteria outpatient rehabilitation</i>						
3a.	Admission criteria outpatient rehabilitation present?	Yes	Yes	Yes	Yes	No
Patient:						
3b.1	has complex and/or multiple impairments	V	V	V	V	No
3b.2	requires treatment by a multidisciplinary team	V	V	V	V	No
3b.3	is expected to return to former living situation	V	V	V	–	Yes
3b.4	has sufficient physical and mental condition	V	–	–	V	Yes
3b.5	is trainable	V	V	V	V	No
3b.6	is 18 years or older	V	–	–	–	Yes
<i>4. Exclusion criteria inpatient rehabilitation</i>						
4a.	Exclusion criteria inpatient rehabilitation present?	Yes	Yes	Yes	Yes	No
Patient:						
4b.1	has no permanent place of residence	V	–	–	–	Yes
4b.2	his/her stay in the Netherlands is illegal	V	–	–	–	Yes
4b.3	has no health insurance and cannot guarantee reimbursement	V	–	–	–	Yes
4b.4	is aged between 16 and 80 years	V	–	–	–	Yes
4b.5	has a life expectancy of less than 6 months	V	–	V	–	Yes
4b.6	has a life expectancy of less than 8 weeks	–	V	–	–	Yes
4b.7	has severe (co)morbidity for which no medical care is available.	V	–	V	V	Yes

4b.8	has a Barthel index <5 and severe comorbidity	V	–	–	–	Yes
4b.9	has a severe psychiatric disorder	V	V	V	V	No
4b.10	is addicted to drugs or alcohol	– ^a	V	V	V	Yes
4b.11	has premorbid dementia	–	V	–	V	Yes
4b.12	has a delirium	–	V	–	–	Yes
<i>5. Exclusion criteria outpatient rehabilitation</i>						
5a.	Exclusion criteria present?	Yes	Yes	Yes	Yes	No
Patient:						
5b.1	his treatment needs cannot be met	V	–	–	–	Yes
5b.2	has equal treatment available closer to home	–	–	–	V	Yes
5b.3	needs intensive assistance at home	–	–	–	V	Yes
<i>6. Discharge criteria inpatients</i>						
6a.	Discharge criteria present?	Yes	Yes	No	Yes	Yes
Patient:						
6b.1	his goals have been achieved OR cannot be achieved in the foreseeable future	V	–	NA	–	Yes
6b.2	does not adhere to treatment or voluntarily terminates treatment	V	–	NA	–	Yes
6b.3	does not agree on treatment with care provider	V	–	NA	–	Yes
6b.4	External factors inhibit RC to complete treatment	V	–	NA	–	Yes
6b.5	Patient or caregiver shows inappropriate behaviour	V	–	NA	V	Yes
6b.6	is capable of toileting and hygiene ^b	V	V	NA	V	Yes
6b.7	is capable of food and fluid intake ^b	V	V	NA	V	Yes
6b.8	is capable of groceries and household chores ^b	V	V	NA	V	Yes
6b.9	is capable of reaching bed	V	V	NA	V	Yes
6b.10	is capable of raising alarm	V	V	NA	V	Yes
6b.11	is capable of leaving and entering the house	V	V	NA	V	Yes
6b.12	is capable of functioning safely	V	V	NA	V	Yes
6b.13	has started follow-up treatment	–	–	NA	V	Yes
<i>7. Discharge criteria outpatients</i>						
7a.	Discharge criteria outpatients present?	Yes	No	No	Yes	Yes
Patient:						
7b.1	his/her goals have been achieved or cannot be achieved in the foreseeable future	V	NA	NA	V	Yes
7b.2	does not adhere to treatment or voluntarily terminates treatment	V	NA	NA	–	Yes
7b.3	and care provider do not agree on treatment	V	NA	NA	–	Yes
7b.4	External factors inhibit RC to complete treatment	V	NA	NA	–	YES
7b.5	Patient or caregiver shows inappropriate behaviour	V	NA	NA	–	YES
7b.6	Referral to other care provider is indicated	–	NA	NA	V	YES

Treatment-related						
<i>8. Inpatient subgroups</i>						
8a.	Inpatient subgroups present?	Yes	No	Yes	Yes	Yes
8b	Composition of subgroups	1a. Motor + aphasia 1b. Motor 2. "Short inpatients" 3a Aphasia + cognition 3b Cognition 4a Motor + aphasia + cognition. 4b Motor + cognition.	NA	1. Motor clinical 2. General clinical 3. Cognition clinical – walking ability 4. Cognition clinical – no walking ability	1. Stroke short ^c 2. Stroke long ^c 3. ABI short ^c 4. ABI long ^c 5. ABI extra long ^c	Yes
<i>9. Outpatient subgroups</i>						
9a.	Outpatient subgroups present?	Yes	Yes	Yes	Yes	No
9b	Composition of subgroups	1a. Motor + aphasia 1b. Motor 3a Aphasia + cognition 3b. Cognition 4a Motor + aphasia + cognition 4b Motor + cognition	1. General trajectory 2. Intensive trajectory based on behavioural problems	1. Motor/regular ^c 2. Cognition ^c	1. ABI motor 2. ABI cognition/behaviour	Yes
<i>10. Clinical pathways (duration of treatment) inpatients</i>						
10a.	Clinical pathways present?	Yes	No	Yes	Yes	Yes
10b.	Duration (weeks)	Duration of diagnostic phase: 3 Duration of treatment per subgroup: 1a + 1b: 6 to 9 2: 3 3a + 3b: 6 to 9 4a + 4b: 9 or 15 or 21	NA	Duration of treatment per subgroup: 1: 6 to 14 2: 3 to 10 3: 10 to 16 4: 10 to 16	Duration of treatment per subgroup: 1: 6 to 8 2: 10 to 14 3: 2 to 6 4: 7 to 9 5: 20 to 26	Yes
<i>11. Clinical pathways (duration of treatment) outpatients</i>						
11a.	Clinical pathways present?	Yes	No	Yes	Yes	Yes
11b.	Duration (weeks)	1a + 1b: 11 or 21 or 26 3a + 3b: 6 or 20 or 26 or 32 or 52 4a + 4b: 16 or 26 or 32	NA	1: 6 to 18 2: 6 to 18	1: 12 to 18 2: 12 to 100 (low frequency)	Yes
<i>12. Timing of team meetings inpatients</i>						
12a.	Team meetings present?	Yes	Yes	Yes	Yes	No
12b.1	First team meeting	2–3 weeks after admission	3 weeks after admission	1–2 weeks after admission	1 week after admission	Yes
12b.2	Follow-up team meetings	Every 3–5 weeks	Every 2–4 weeks ^d	Every 3 weeks	Every 3 weeks	Yes
<i>13. Timing of team meetings outpatients</i>						
13a.	Team meetings present?	Yes	Yes	Yes	Yes	No
13b.1	First team meeting	Week 2 after start treatment	4 Weeks after start treatment	Every 3 weeks	After first consultation	Yes
13b.2	Follow-up team meetings	Each 6–8 weeks	Week 2 and 6 (intensive trajectory); by indication (regular trajectory)	Every 6 weeks	Every 6–10 weeks	Yes
<i>14. Timing of clinical assessments inpatients</i>						
14a.	Clinical assessments present?	Yes	Yes	Yes	Yes	No
14b.1	First assessment	Within 2 weeks after admission	Within 2 weeks after admission	Within 1 week after admission	Within 1 week after admission	Yes
14b.2	Last assessment	Before last team meeting	Before last team meeting	Within 7 days before discharge	Within 10 days before discharge	Yes
14b.2	Intermediate assessments	None	Sometimes	Before each team meeting, PT and OT only	none	Yes

<i>15. Timing of clinical assessments outpatients</i>						
15a	Clinical assessments present?	Yes	Yes	Yes	Yes	No
15b.1	First assessment	During week 1–3 or during week 1–5	No standard moments	First week of treatment	At start of treatment	Yes
15b.2	Last assessment	No standard moments	No standard moments	Last week of treatment	At end of treatment	Yes
15b.3	Intermediate assessments	None	None	None	None	No
<i>16. Return to work module</i>						
16a.	Return to work module present?	Yes	Yes	Yes	Yes	No
16b.1	Individual task directed training	V	V	V	V	No
16b.2	Involvement of specialized occupational physician/ researcher	–	–	V	–	Yes
16b.3	Consultation with employer and occupational physician	V	V	–	V	Yes
16b.4	Return to work coordinator	–	–	–	V	Yes
<i>17. Aftercare module</i>						
17a.	Aftercare module present?	Yes	Yes	Yes	Yes	No
17b.1	Discussing patient's complaints	V	V	V	V	No
17b.2.	Involving caregiver	V	V	V	V	No
17b.3.	Frequency	1–3 times	1–5 times	1–2 times	1–2 times	Yes
17b.4	Duration	Up to 1 year after rehabilitation	Up to 2 years after rehabilitation	Short-term, not defined	Short-term, not defined	Yes
Client-involvement-related						
<i>18. Patient involvement</i>						
18a	Patient involvement strategies present?	Yes	Yes	Yes	Yes	No
18.b1	Meeting with patient aimed at goal setting	V	V	V	V	No
18.b2	Consulting patient before each team meeting	V	V	V	V	No
18.b3	Briefing patient after each team meeting	V	V	V	V	No
<i>19. Caregiver involvement</i>						
19a	Caregiver involvement strategies present?	Yes	Yes	Yes	Yes	No
19b.1	Caregiver invited for meetings with rehabilitation physician and care providers	V	V	V	V	No
19b.2	Partner course/discussion group	V	V	V	V	No
19b.3	Communication course for partners of patients with aphasia	–	V	V	V	Yes
19b.4	Meeting with social worker	V	V	V	V	No
19b.5	Meeting with sexologist	V	–	–	–	Yes
19b.6	Possibility for partner/ caregiver to join the patient during treatment	V	V	V	V	No
19b.7	Family meeting	–	–	–	V	Yes
Facilities-related						
<i>20. Treatment facilities</i>						
20.1–9	Treatment rooms, sports hall, swimming pool, practice home (sleeping room, living room, kitchen), fitness hall, silence room, practice garden, gait training laboratory, 24-h qualified nursing					No
20.10	Computer Room	V	–	V	V	Yes
20.11	Exercise test laboratory	–	–	V	V	Yes

21. Health professionals						
21.1–16	Rehabilitation physician, physical therapist, occupational therapist, speech therapist, psychologist, qualified sports and exercise instructor, activity therapist, sexologist, nurse, dietician, social worker, religious worker, rehabilitation technician. In-house consultations by psychiatrist, orthopaedist, internist					No
21.17	Music therapist	V	–	–	V	Yes
21.18	Speech language therapist specialized in linguistics	–	V	–	V	Yes
21.19	Psychologist offering exercises to improve cognitive skills	–	–	–	V	Yes
21.20	Psychology assistant	V	–	V	V	Yes
21.21	Return to work coordinator	–	–	–	V	Yes
21.22	Specialized occupational physician/return to work researcher	–	–	V	V	Yes
21.23	Haptotherapist	–	–	–	V	Yes
21.24	Driving instructor	–	–	–	V	Yes
21.25	Therapy-assistant	V	–	V	V	Yes
22. Clinical assessment instruments inpatients						
22.1–9		Nurse: Utrecht Scale for Evaluation of Rehabilitation (USER), Barthel Index (BI); Physical therapist: 10-metre walk test (10MWT), Berg Balance Scale (BBS), Functional Ambulation Categories (FAC), Brunnstrom Fugl-Meyer (BFM); Occupational therapist: Action Research Arm Test (ARA); Speech therapist: Aken Aphasia Test (AAT); Psychologist: Neuropsychological Assessment (NPO)				No
Physical therapist						
22.10	6-min walk test (6MWT)	V	V	V	–	Yes
22.11	Åstrand test	–	–	–	V	Yes
22.12	Maximum exercise test	–	–	–	V	Yes
22.13	Motricity Index (MI)	V	V	–	V	Yes
Occupational therapist						
22.14	Nottingham Sensory Assessment (NSA)	V	V	–	–	Yes
22.15	Nine-hole Peg Test (NPT)	V	V	–	–	Yes
22.16	Canadian Occupational Performance Measure (COPM)	V	V	–	V	Yes
22.17	Allen Cognitive Level (ACL)	V	V	–	–	Yes
22.18	Modified Ranking Scale (MRS)	–	V	V	–	Yes
Speech therapist						
22.19	Semantic Association Test (SAT)	V	V	–	–	Yes
22.20	Screeing	V	V	V	–	Yes
22.21	Dutch Aphasia Institution Scale (SAN)	V	V	–	–	Yes
22.22	Frenchay Dysarthria Assessment (FDO)	V	V	–	–	Yes
22.23	Functional Oral Intake Scale (FOIS)	V	V	–	–	Yes
22.24	Radboud Scales	V	V	–	–	Yes
22.25	Amsterdam-Nijmegen language skills assessment (ANTAT)	–	–	V	V	Yes
22.26	Boston Naming Test (BNT)	–	–	V	–	Yes
Social worker						
22.27	Fatigue Severity Scale (FSS)	V	V	V	–	Yes
22.28	Caregiver Strain Index (CSI)	V	V	–	V	Yes

General						
22.29	Stratify	–	–	–	V	Yes
22.30	Hospital Anxiety and Depression Scale	–	–	V	V	Yes
22.31	COOP-WONCA charts	–	–	V	–	Yes
<i>23. Clinical assessment instruments outpatients</i>						
23	Same instruments as for inpatients	Utrecht Scale for Evaluation of Rehabilitation-Participation (USER-P)	Same as inpatients + CSI, Impact on Participation and Autonomy (IPA), Life Satisfaction scale (LiSat)		USER-P, NPO	Yes

^aAddicted patients are excluded unless they sign an agreement on abstinence during rehabilitation.

^bWith or without assistive device(s) or assistance of others.

^cIncluding patients with language/speech impairments.

^dDepending on clinical pathway.

V: present; –: not present.; NA: not applicable; ABI: acquired brain injury.