

SUPPLEMENTARY MATERIALS

**Table S1.** Four-aspect assessments, intervention points, goals, and outcomes after 1 month and at discharge for the low-efficiency group (cases with 5 highest motor FIM scores at admission, 5 cases with minimum scores)

Patient (age, sex)	Four-aspect assessment	Intervention points	Goal setting	Outcomes at 1-month discharge		
				Motor FIM items (admission/1 month), functional changes after 1 month	Admission → 1 month → Discharge (motor FIM item) <sup>a)</sup>	Hospital days, recovery
High scores	70, M 1. Infarct, right watershed region, 30, HT, HC 2. List impairment resulting from left (VI, V, VI) lesions 3. Enjoys and highly motivated to play golf 4. Lives with wife	Relax muscles, concentrating on consciously producing movement	Pinching movement of the left hand	Became able to tie shoelaces	89→89→89 (Transfer to bath 5)	97, own home
70, M	1. Infarct, right MCA, 28 2. Right (I, I, VI), Sensory disorders present 3. Optimistic and not overly concerned by severe upper limb paralysis 4. Wife comes to hospital daily, daughter works in the hospital office	Increase awareness of upper limb paralysis using functional electrical stimulation	Regaining function in the upper limb proximal to the fingers	Stairs 5/7	85→87→87 (Bathing 5, Transfer to bath 5)	73, own home
68, M	1. Infarct, right LSA (BAD) right medial crus posterior capsule inter-nae to corona radiata, 31, DM, HT 2. Left (V, IV, VI) 3. Works hard, highly motivated 4. Will pass self-run pipe-laying business to son after leaving hospital	Make use of healthy thumb function and sensory function	Set a goal of 20 kg grip strength in two months' time	Bowel movements 6/7, Dressing lower-body 6/7, Stairs 6/7, STEF (left): 1→21/100	84→87→89 (Bathing 5)	56, own home
46, F	1. Hemorrhage, right putamen, 31, DM, HT, self-discontinued oral HC 2. Left (VI, VI, VI) 3. Strong desire to return to work for financial reasons 4. Lives on the third floor of municipal housing with her oldest and second daughters	Extend maximum duration of standing from 30 min to 5 h	Returning to home and work (noodle shop) at the earliest opportunity	Walking/wheelchair 5/7, Bathing 4/5, Stairs 5/7	83→88→89 (Bowel management 6, Transfer to bath 6)	63, own home

**Table S1.** Continued 1

Patient (age, sex)	Four-aspect assessment	Intervention points	Goal setting	Outcomes at 1-month discharge		
				Motor FIM items (admission/1 month), functional changes after 1 month	Admission → 1 month → Discharge (motor FIM item) <sup>a)</sup>	Hospital days, recovery
87, F	<ol style="list-style-type: none"> <li>1. Infarct, left MCA, 30</li> <li>2. Right (VI, VI, VI), Unilateral spatial neglect, Aphasia, dysphagia, Dementia present: 13 points</li> <li>3. Passive, with little indication of will</li> <li>4. Second son works in medical device manufacturing</li> </ol>	<p>Begin with guidance to bathroom and work toward increased motivation</p>	<p>Attempting to use the toilet with the hospital call system</p>	<p>Walking/wheelchair 5/7, Stairs 5/6, Dressing lower-body 6/7</p>	<p>82→86→86 (Bathing 5, Transfer to bath 5, Stairs 6)</p>	<p>62, own home</p>
Minimum scores	<ol style="list-style-type: none"> <li>1. Infarct, right LSA, 18, DM</li> <li>2. Left (IV, VI, IV), Unilateral spatial neglect, Dementia present: 7 points; sensory disorders present</li> <li>3. Apathetic, varying levels of motivation</li> <li>4. Devoted husband who has looked after patient for two years</li> </ol>	<p>Reduction of burden of care</p>	<p>Reduced assistance in transfers</p>	<p>Eating 1/4, Transfer to bed 1/2, Assisted walking possible if patient feels motivated to do so</p>	<p>13→17→18 (Grooming 1/2)</p>	<p>150, own home</p>
82, F	<ol style="list-style-type: none"> <li>1. Infarct, inferior posterior branch of left MCA, 50, L2 compression fracture, HT</li> <li>2. Right (VI, VI, VI), Aphasia, Dementia present; sensory disorders present</li> <li>3. Refused rehabilitation after depression/social withdrawal two years previously</li> <li>4. Plans to return to geriatric facility with assistance level II</li> </ol>	<p>Limit staff members and approach in a caring manner</p>	<p>Getting out of bed, avoiding exacerbation of depression or rejection</p>	<p>Eating 1/4, Willing to walk with assistance if helped by close relatives, staff members</p>	<p>13→16→16</p>	<p>105, geriatric facility</p>

**Table S1.** Continued 2

Patient (age, sex)	Four-aspect assessment	Intervention points	Goal setting	Outcomes at 1-month discharge		
				Motor FIM items (admission/1 month), functional changes after 1 month	Admission → 1 month → Discharge (motor FIM item) <sup>a)</sup>	Hospital days, recovery
86, F	<ol style="list-style-type: none"> <li>1. Infarct, right MCA, ACA, neurosurgery, 17, RA, compression fracture, atrial fibrillation</li> <li>2. Left (III, III, IV), Unilateral spatial neglect, aphasia, dysphagia, Dementia present: 13 points</li> <li>3. Enjoys conversation, energetic, shows motivation</li> <li>4. Assistance level I, could take a bath on her own by taking over 1 hour</li> </ol>	<p>Patient was watched and given verbal assistance, but no physical assistance</p>	<p>Could perform transfers on her own by taking 5 minutes</p>	<p>Grooming 1/3, Can sit up</p>	<p>13→15→42(+27)<sup>b)</sup></p>	<p>174, residential</p>
92, F	<ol style="list-style-type: none"> <li>1. Infarct, left MCA (all regions), 28, atrial fibrillation</li> <li>2. Right (I, I, I), Aphasia</li> <li>3. Quiet speech and nodding</li> <li>4. Lives alone. Family does not want aggressive rehabilitation</li> </ol>	<p>Maintaining a seated position allowing the use of the left hand</p>	<p>Eating in a seated position</p>	<p>Eating 1/3, Increased freedom of hand on the unaffected side by improving maintenance of the sitting posture</p>	<p>13→15→18(+3)<sup>c)</sup></p>	<p>163, transferred</p>
86, F	<ol style="list-style-type: none"> <li>1. Infarct, right MCA, 29, HT, heart disease</li> <li>2. Left (I, I, III), unilateral spatial neglect, dysphagia, sensory disorders</li> <li>3. Complains often, but full of energy</li> <li>4. Lives together with 87-year-old wife, considering geriatric facility</li> </ol>	<p>Reduction of assistance by taking advantage of the unaffected side</p>	<p>Independent movement in a wheelchair</p>	<p>Transfers: bed 1/2, Walking/wheelchair 1/2, Able to maintain a standing position for 30 seconds</p>	<p>13→15→17 (Dressing lower body 1/2, Dressing lower body 1/2)</p>	<p>164, geriatric facility</p>

Four-aspect assessment are following: 1. Clinical features, 2. Functional impairment features, 3. Psychological aspects, and 4. Environmental aspects. For the clinical features, a diagnostic numerical value is provided with time after onset (in days); 'Affected side of the body' is defined by Brunstrom stage as upper limb, fingers, or lower limb. Cognitive effects scores are based on Hasegawa Dementia Scale for Revised. Information on the characteristics of psychological and environmental aspects was recorded after speaking with the patients' families and confirming the situation. ACA, anterior cerebral artery; MCA, middle cerebral artery; LSA, lenticulostriate artery; BAD, branch atheromatous disease; HT, hypertension; DM, diabetes mellitus; AD, Alzheimer's disease; PD, Parkinson's disease; RA, rheumatoid arthritis; STEE, Simple Test for Evaluating Hand Function; Residential, residential nursing care facility.

<sup>a)</sup>Reduced point items for high-score cases, 1 month/discharge for minimum-score cases; <sup>b)</sup>eating 1/6, grooming 3/4, bathing 1/4, dressing upper body 1/4, dressing lower body 1/4, toileting 1/3, transfer to bed 1/5, transfer to toilet 1/4, transfer to bath 1/3, wheelchair 1/2; <sup>c)</sup>eating 3/4, dressing upper body 1/2, transfer to bed 1/2.