

Spinal Cord Injury First Episode of Rehabilitation Therapy Outcomes October 2017

The outcomes described below represent the consensus view of the Spinal Cord Injury Therapy Leads in the UK and Ireland. Estimations are based on patients with no complications, no co-morbidity, in their mid-20s, previously fit and well, and well-motivated. The lengths of stay are considered from sitting out for 4 hours until the end of the patient's first rehabilitation admission, for those achieving the highest functional outcomes. They do not encompass delays to discharge caused by social problems.

Patient Name:				DoB:				Male / Female			
Date of Injury:				Date of Admission:							
Date of Mobilisation from Bed:				Date Sitting out 4 hrs:							
Date Completion Rehabilitation:				Date Discharge from SCIC:							
Admission ISNCSCI Score:				Discharge ISNCSCI Score:							
Mobilisation SCIM III				Sitting 4 hours SCIM III				Discharge SCIM III			
ISNCSCI Level:		C0-C4 24 hr ventilated			C0-C4 night ventilated			C0-C4 not ventilated			
C5	C6	C7	C8-T1	T2-T6	T7-T12	L1-L2	L3	L4-			
Ambulant AIS C/D			yes				no				
Zones of Partial Preservation			yes				no				
Co-morbidities		Cancer									
		Compromised cognition									
		Head injury									
		Mental health and/or psychological issues									
		Musculoskeletal conditions (e.g. OA)									
		Pre-existing cardiac/respiratory morbidity									
		Other:									
Complications		Tissue viability									
		Other fractures/injuries									
		Heterotrophic ossification									
		Recurrent infective illness (e.g. UTIs/CIs)									
		Severe spasticity									
		Infection control restrictions									
		Other:									
OT:						PT:					

Abbreviations

UL - upper limb

LL - lower limb

TB – transfer board

PADL – personal activities of daily living

DADL – domestic activities of daily living

UMN – upper motor neurone

LMN – lower motor neurone

LoS – Length of Stay

Definitions

grooming – wash face, shave, make-up, brush teeth, brush hair, wash hair

PADL – upper and lower body washing, drying and dressing

light DADL – domestic activities to include snack and drink preparation

heavy DADL – meal preparation, laundry, cleaning and shopping

Criteria

posture and seating
mobility
community reintegration
neuro-musculoskeletal
respiratory
activities of daily living

Codes

1	achieved
N	not applicable - patient's level of SCI makes the criteria unnecessary
0	not achieved
d	patient declined
M	medically inappropriate

It should be emphasised that the SCIFERTO criteria describe the best possible outcome for a patient with the least possible confounding factors for each level of spinal cord injury. Those achieving all the criteria for a level of injury are expected to be in a small minority, most patients are expected to have some 0s.

N should only be used when the patient's level of spinal cord injury means the criteria is unnecessary for a patient with that level of spinal cord injury e.g. Those with C4 AIS D may never need a wheelchair (all wheelchair criteria). Those with a lower motor neurone lesion will never need FES (criteria 26) and those with an upper motor neurone lesion will never need lower motor neurone stimulation (criteria 80).

M should only be used when a criteria is not appropriate for a medical reason e.g. it may be inappropriate to trial ambulation with someone with a fractured leg (criteria 77)

Where aids or appliances are mentioned, the patient does not require them, but could achieve the criteria as described eg (criteria 40) assisted same height transfer on and off bed with aids should be marked 1 as they could achieve the criteria, even if the patient also achieves (criteria 69) independent same height transfers on and off the bed with no aids, which should also be marked 1.

Level of Injury	Therapy Outcomes		Achieved Outcome	Target LOS (weeks)
C0-C4 24 hr ventilated	1	up in wheelchair for 8 consecutive hours		20
	2	seating assessed and recommendations made		
	3	posture assessed and recommendations made for 24 hour positioning		
	4	verbally independent in postural adjustment		
	5	acceptable posture and seating and skin integrity equipment provided		
	6	head/chin control powered wheelchair trialed and recommendations made		
	7	travel and transport discussed and recommendations made		
	8	mode of pressure relief established		
	9	employment/vocation opportunities considered		
	10	leisure and recreation activities considered and recommendations made		
	11	social outings carried out		
	12	overnight stay out of centre		
	13	trial of assistive technology for communication and recommendations made		
	14	verbally independent in directing own care		
	15	education provided to carers to meet therapeutic needs		
	16	home and/or discharge environment assessed and recommendations made		
	17	environmental control systems demonstrated and referral made		
	18	equipment required for discharge assessed, recommended and in situ		
	19	respiratory care plan established		
	20	verbally independent in directing respiratory care		
	21	neck strengthening exercise programme established		
	22	therapeutic spasticity management plan established		
	23	assessment and recommendation for standing device made		
	24	able to stand using device with assistance		
	25	standing device provided		

Level of Injury	Therapy Outcomes		Achieved Outcome	Target LOS (weeks)
	26	use of UMN electrical stimulation assessed and recommendations made		
	27	UL ROM and activity assessed and positioning/exercise prescribed		
	28	LL ROM and activity assessed and positioning/exercise prescribed		
	29	UL splinting regime established		
	30	LL splinting regime established		
	31	oedema assessed and management programme established where necessary		
	32	verbally independent in directing positioning, splinting and exercise programme		
	33	cardio-vascular fitness recommendations made		
C0-C4 night ventilated	34	inspiratory muscle training programme established		20
C0-C4 not ventilated	35	trials aquatic therapy		16
	36	up in wheelchair for 12 consecutive hours		20
C5	37	trial of UL controlled powered mobility		
	38	trial of self-propelling wheelchair		
	39	trial of power assisted wheels		
	40	driving considered and discussed		
	41	assisted same height transfer on and off bed with aids (not including lifting legs)		
	42	once set up with adaptive aids, carry out grooming activities in an accessible environment		
	43	once with set up with adaptive aids, carry out feeding in an accessible environment		
	44	once set up with adaptive aids, carry out writing in an accessible environment		
45	balance training undertaken			
C6	46	independent pressure relief		24
	47	independent positioning in w/c		
	48	self-propelling on level surfaces		
	49	self-propelling on small inclines (1:12)		
	50	independent flipping front castors		

Level of Injury	Therapy Outcomes		Achieved Outcome	Target LOS (weeks)
	51	independent back wheel balance		
	52	independent traversing rough terrain in back-wheel balance		
	53	independent ascending and descending 7.5cm kerb		
	54	independent rolling in double bed		
	55	independent moving between supine lying and long sitting in bed		
	56	independent lifting legs on and off the bed		
	57	independent same height transfers with TB on and off bed		
	58	assisted car transfers with TB		
	59	independent lifting lightweight wheelchair in and out of car		
	60	independent grooming in an accessible environment		
	61	independent writing in an accessible environment		
	62	independent feeding in an accessible environment		
	63	independent light DADL		
	64	independent in UL PADL with adaptive aids		
	65	independent in LL PADL with adaptive aids		
C7	66	discussion of supported ambulation options		20
	67	independent car transfers with TB		
	68	independent graduated floor to w/c transfer		
	69	independent same height transfers on/off bed with no aids		
	70	independent stretch programme		
C8/T1	71	independent in UL PADL without aids in an accessible environment		18
	72	independent in LL PADL without aids in an accessible environment		
	73	independent in light DADL without aids in an accessible environment		
	74	independent in/out standing frame		

Level of Injury	Therapy Outcomes		Achieved Outcome	Target LOS (weeks)
T2-T6	75	up/downstairs in wheelchair with assistance		16
	76	“bunny hop” in wheelchair		
	77	independent floor to and from wheelchair transfer		
	78	independent car transfers with no aids		
	79	independent in heavy DADL without aids in an accessible environment		
T7-T12	80	trial of ambulation		12
	81	don/doff lower limb ambulation orthoses independently		
L1-L2	82	consideration of functional ambulation		16
	83	trial LMN electrical stimulation and recommendations made		
L3	84	independent indoor functional ambulation		14-16
	85	independent ascend/descend 7.5 cm step/kerb with no rail		
	86	independent ascend/descend flight of stairs		
	87	independent on/off floor		
	88	independent ascend/descend 1:12 slope		
	89	independent outdoor functional ambulation (<100m)		
	90	independent outdoor functional ambulation (>100m)		
	91	independent ambulation over rough terrain		
L4-				6