

Spinal Cord Dysfunction LOS and FIM Change Benchmarks in Australia & New Zealand by AN-SNAP V5, Financial Year 2022



AN-SNAP class	Specialist Spinal Units				Non Specialist Spinal Units				All AROC Facilities			
	No.	Length of stay	FIM change	FIM gain per week	No.	Length of stay	FIM change	FIM gain per week	No.	Length of stay	FIM change	FIM gain per week
		Mean (95%CI)	Mean (95%CI)			Mean (95%CI)	Mean (95%CI)			Mean (95%CI)	Mean (95%CI)	
Traumatic episodes												
5AZ1	42	115.0 (98.4 - 131.7)	26.3 (18.6 - 34.0)	1.6	9	39.2 (19.4 - 59.1)	28.6 (10.4 - 46.7)	5.1	51	101.7 (85.3 - 118.0)	26.7 (19.7 - 33.8)	1.8
5AZ2	44	133.8 (114.0 - 153.7)	24.5 (18.3 - 30.8)	1.3	4	n.a	n.a	n.a	48	128.0 (108.7 - 147.3)	24.8 (18.6 - 31.1)	1.4
5AD1	27	38.9 (27.2 - 50.6)	15.0 (11.3 - 18.8)	2.7	17	27.5 (9.6 - 45.5)	18.5 (14.0 - 23.1)	4.7	44	34.5 (24.5 - 44.5)	16.4 (13.5 - 19.3)	3.3
5AD2	42	55.2 (43.7 - 66.7)	32.8 (29.8 - 35.8)	4.2	23	23.9 (18.3 - 29.5)	26.2 (21.3 - 31.1)	7.7	65	44.1 (35.7 - 52.6)	30.5 (27.8 - 33.1)	4.8
5AD3	78	88.5 (78.9 - 98.1)	36.9 (32.7 - 41.2)	2.9	17	47.9 (34.9 - 60.9)	26.2 (16.5 - 36.0)	3.8	95	81.2 (72.4 - 90.0)	35.0 (31.0 - 39.0)	3.0
5API	2	n.a	n.a	n.a	20	18.9 (12.7 - 25.0)	19.9 (13.9 - 25.8)	7.4	22	22.8 (15.0 - 30.7)	18.9 (13.3 - 24.5)	5.8
5AP2	11	114.1 (61.3 - 166.9)	32.6 (22.8 - 42.5)	2.0	12	49.0 (41.7 - 56.3)	50.0 (38.1 - 61.9)	7.1	23	80.1 (51.9 - 108.4)	41.7 (33.2 - 50.2)	3.6
Total episodes	246				102				348			
Non-Traumatic episodes												
5AZ1	18	85.7 (73.6 - 97.8)	29.2 (18.8 - 39.7)	2.4	16	49.8 (30.4 - 69.1)	18.8 (8.5 - 29.0)	2.6	34	68.8 (56.2 - 81.4)	24.3 (16.9 - 31.7)	2.5
5AZ2	9	145.1 (108.1 - 182.2)	25.1 (13.5 - 36.7)	1.2	4	n.a	n.a	n.a	13	120.9 (86.5 - 155.4)	23.7 (13.5 - 33.9)	1.4
5AD1	36	39.9 (28.1 - 51.7)	13.3 (10.9 - 15.8)	2.3	117	16.7 (14.3 - 19.0)	14.1 (12.6 - 15.6)	5.9	153	22.1 (18.5 - 25.8)	13.9 (12.6 - 15.2)	4.4
5AD2	30	61.2 (47.8 - 74.5)	30.0 (25.8 - 34.3)	3.4	85	32.5 (26.3 - 38.8)	27.5 (24.9 - 30.1)	5.9	115	40.0 (33.8 - 46.2)	28.2 (25.9 - 30.4)	4.9
5AD3	86	84.0 (75.4 - 92.5)	33.6 (29.5 - 37.8)	2.8	110	52.1 (44.4 - 59.8)	27.8 (24.1 - 31.4)	3.7	196	66.1 (60.0 - 72.2)	30.4 (27.6 - 33.1)	3.2
Total episodes	179				332				511			

NOTE 1: Where the number of episodes < 5 details are not given for reasons of privacy and accuracy.

NOTE 2: Analysis includes first admission, complete episodes only

AN-SNAP V5 classes for Spinal Cord Dysfunction

Class	Description of AN-SNAP class
5AZ1	Weighted FIM Motor score 13-18, Brain, Spine, MMT, Burns, Age >= 59
5AZ2	Weighted FIM Motor score 13-18, Brain, Spine, MMT, Burns, Age 18 - 58
5AD1	Spinal cord dysfunction, Weighted FIM Motor 55 - 91
5AD2	Spinal cord dysfunction, Weighted FIM Motor 37 - 54
5AD3	Spinal cord dysfunction, Weighted FIM Motor 19 - 36
5API	Major Multiple Trauma, Weighted FIM Motor 51 - 91
5AP2	Major Multiple Trauma, Weighted FIM Motor 19 - 50

All Spinal Cord Dysfunction impairment codes

Traumatic spinal cord dysfunction	Non traumatic spinal cord dysfunction
4.211 Paraplegia, incomplete	4.111 Paraplegia, incomplete
4.212 Paraplegia, complete	4.112 Paraplegia, complete
4.2211 Quadriplegia, incomplete C1-4	4.1211 Quadriplegia, incomplete C1-4
4.2212 Quadriplegia, incomplete C5-8	4.1212 Quadriplegia, incomplete C5-8
4.2221 Quadriplegia, complete C1-4	4.1221 Quadriplegia, complete C1-4
4.2222 Quadriplegia, complete C5-8	4.1222 Quadriplegia, complete C5-8
4.23 Other traumatic spinal cord dysfunction	4.13 Other non-traumatic spinal cord dysfunction
Major Multiple Trauma	
14.1 Brain + spinal cord injury	
14.3 Spinal cord + multi fracture/amputation	

Spinal Cord Dysfunction LOS and FIM Change Benchmarks in Australia & New Zealand by AN-SNAP V4, Financial Year 2022



AN-SNAP class	Specialist Spinal Units				Non Specialist Spinal Units				All AROC Facilities			
	No.	Length of stay	FIM change	FIM gain per week	No.	Length of stay	FIM change	FIM gain per week	No.	Length of stay	FIM change	FIM gain per week
		Mean (95%CI)	Mean (95%CI)			Mean (95%CI)	Mean (95%CI)			Mean (95%CI)	Mean (95%CI)	
Traumatic episodes												
4AZ1	52	120.9 (104.4 - 137.4)	27.2 (20.2 - 34.1)	1.6	10	43.4 (24.1 - 62.7)	27.7 (11.5 - 43.9)	4.5	62	108.4 (92.6 - 124.2)	27.2 (20.9 - 33.5)	1.8
4AZ2	37	126.9 (106.7 - 147.1)	25.3 (18.7 - 31.9)	1.4	3	n.a	n.a	n.a	40	121.8 (101.7 - 141.8)	25.7 (18.9 - 32.5)	1.5
4AD1	31	48.2 (32.2 - 64.1)	25.6 (21.2 - 30.0)	3.7	23	21.2 (16.3 - 26.2)	20.0 (16.3 - 23.8)	6.6	54	36.7 (26.6 - 46.8)	23.2 (20.2 - 26.3)	4.4
4AD2	44	72.0 (60.1 - 84.0)	32.7 (27.0 - 38.3)	3.2	21	39.0 (28.4 - 49.7)	30.0 (23.0 - 37.1)	5.4	65	61.4 (51.9 - 70.8)	31.8 (27.4 - 36.2)	3.6
4AD3	31	53.8 (44.4 - 63.3)	24.8 (20.1 - 29.5)	3.2	10	38.1 (8.6 - 67.6)	22.2 (12.4 - 32.0)	4.1	41	50.0 (39.7 - 60.2)	24.2 (19.9 - 28.5)	3.4
4AD4	38	98.1 (83.6 - 112.5)	39.8 (34.1 - 45.5)	2.8	3	n.a	n.a	n.a	41	94.4 (80.0 - 108.7)	38.1 (32.3 - 43.9)	2.8
4AP1	12	109.6 (61.3 - 157.9)	27.4 (17.6 - 37.2)	1.8	32	30.2 (23.2 - 37.1)	31.2 (23.5 - 38.8)	7.2	44	51.8 (34.3 - 69.3)	30.1 (23.9 - 36.3)	4.1
Total episodes	245				102				347			
Non-Traumatic episodes												
4AZ1	25	105.6 (86.9 - 124.4)	28.3 (20.2 - 36.4)	1.9	21	51.3 (34.7 - 67.9)	18.1 (9.4 - 26.9)	2.5	46	80.8 (66.0 - 95.7)	23.7 (17.6 - 29.7)	2.0
4AZ2	7	114.0 (85.1 - 142.9)	40.0 (26.7 - 53.3)	2.5	1	n.a	n.a	n.a	8	105.8 (75.9 - 135.6)	35.8 (21.5 - 50.0)	2.4
4AD1	25	45.8 (35.3 - 56.3)	15.4 (10.9 - 19.9)	2.4	132	22.2 (18.1 - 26.3)	18.6 (16.8 - 20.4)	5.9	157	26.0 (21.9 - 30.0)	18.1 (16.4 - 19.8)	4.9
4AD2	73	80.3 (70.6 - 90.0)	31.8 (27.5 - 36.1)	2.8	112	49.2 (41.8 - 56.7)	27.6 (24.3 - 30.9)	3.9	185	61.5 (55.2 - 67.8)	29.3 (26.7 - 31.9)	3.3
4AD3	30	46.4 (30.3 - 62.5)	22.0 (17.2 - 26.7)	3.3	46	24.5 (17.4 - 31.5)	18.4 (14.4 - 22.4)	5.3	76	33.1 (25.1 - 41.2)	19.8 (16.7 - 22.9)	4.2
4AD4	18	79.8 (65.0 - 94.6)	36.3 (27.0 - 45.5)	3.2	19	41.7 (29.7 - 53.7)	34.0 (24.9 - 43.1)	5.7	37	60.2 (49.1 - 71.4)	35.1 (28.7 - 41.5)	4.1
Total episodes	178				331				509			

NOTE 1: Where the number of episodes < 5 details are not given for reasons of privacy and accuracy.

NOTE 2: Analysis includes first admission, complete episodes only

AN-SNAP V4 classes for Spinal Cord Dysfunction

Class	Description of AN-SNAP class
4AZ1	Weighted FIM motor score 13-18, Brain, Spine, MMT, Age ≥ 49
4AZ2	Weighted FIM motor score 13-18, Brain, Spine, MMT, Age ≤ 48
4AD1	Spinal cord dysfunction, Age ≥ 50, weighted FIM motor 42-91
4AD2	Spinal cord dysfunction, Age ≥ 50, weighted FIM motor 19-41
4AD3	Spinal cord dysfunction, Age ≤ 49, weighted FIM motor 34-91
4AD4	Spinal cord dysfunction, Age ≤ 49, weighted FIM motor 19-33
4AP1	Major Multiple Trauma, weighted FIM motor 19-91

All Spinal Cord Dysfunction impairment codes

Traumatic spinal cord dysfunction

- 4.211 Paraplegia, incomplete
- 4.212 Paraplegia, complete
- 4.2211 Quadriplegia, incomplete C1-4
- 4.2212 Quadriplegia, incomplete C5-8
- 4.2221 Quadriplegia, complete C1-4
- 4.2222 Quadriplegia, complete C5-8
- 4.23 Other traumatic spinal cord dysfunction

Major Multiple Trauma

- 14.1 Brain + spinal cord injury
- 14.3 Spinal cord + multi fracture/amputation

Non traumatic spinal cord dysfunction

- 4.111 Paraplegia, incomplete
- 4.112 Paraplegia, complete
- 4.1211 Quadriplegia, incomplete C1-4
- 4.1212 Quadriplegia, incomplete C5-8
- 4.1221 Quadriplegia, complete C1-4
- 4.1222 Quadriplegia, complete C5-8
- 4.13 Other non-traumatic spinal cord dysfunction

Spinal Cord Dysfunction LOS and FIM Change Benchmarks in Australia & New Zealand by AN-SNAP V3, Financial Year 2022



AN-SNAP class	Specialist Spinal Units				Non Specialist Spinal Units				All AROC Facilities			
	Length of stay		FIM change	FIM gain per week	Length of stay		FIM change	FIM gain per week	Length of stay		FIM change	FIM gain per week
	No.	Mean (95%CI)	Mean (95%CI)		No.	Mean (95%CI)	Mean (95%CI)		No.	Mean (95%CI)	Mean (95%CI)	
Traumatic episodes												
3-202	61	130.5 (115.5 - 145.5)	22.7 (17.1 - 28.3)	1.2	8	46.5 (22.6 - 70.4)	29.1 (8.1 - 50.2)	4.4	69	120.8 (105.8 - 135.7)	23.5 (18.0 - 29.0)	1.4
3-220	5	28.0 (11.6 - 44.4)	4.0 (1.4 - 6.6)	1.0	2	n.a	n.a	n.a	7	21.6 (7.4 - 35.7)	4.1 (1.5 - 6.8)	1.3
3-221	43	51.6 (39.6 - 63.7)	23.5 (20.5 - 26.4)	3.2	29	26.6 (15.9 - 37.3)	21.1 (18.0 - 24.2)	5.6	72	41.5 (32.7 - 50.4)	22.5 (20.3 - 24.7)	3.8
3-222	97	80.7 (70.5 - 90.9)	34.4 (30.5 - 38.3)	3.0	28	42.8 (31.9 - 53.6)	27.5 (20.3 - 34.6)	4.5	125	72.2 (63.5 - 80.9)	32.8 (29.4 - 36.3)	3.2
3-223	27	105.3 (89.3 - 121.3)	40.6 (33.9 - 47.3)	2.7	2	n.a	n.a	n.a	29	99.9 (83.3 - 116.5)	39.4 (32.8 - 45.9)	2.8
3-238	1	n.a	n.a	n.a	7	15.4 (10.5 - 20.4)	9.4 (4.1 - 14.8)	4.3	8	20.3 (9.8 - 30.7)	8.9 (4.2 - 13.6)	3.1
3-239	1	n.a	n.a	n.a	16	26.0 (16.2 - 35.8)	25.8 (20.1 - 31.4)	6.9	17	28.6 (18.0 - 39.3)	25.0 (19.5 - 30.5)	6.1
3-240	10	119.0 (62.5 - 175.5)	31.1 (20.9 - 41.3)	1.8	9	47.7 (39.0 - 56.3)	54.4 (44.8 - 64.0)	8.0	19	85.2 (51.7 - 118.7)	42.2 (33.5 - 50.8)	3.5
3-241	1	n.a	n.a	n.a	1	n.a	n.a	n.a	2	n.a	n.a	n.a
Total episodes	246				102				348			
Non-Traumatic episodes												
3-202	17	103.8 (80.4 - 127.2)	31.8 (20.8 - 42.8)	2.1	4	n.a	n.a	n.a	21	94.3 (72.5 - 116.1)	28.1 (18.6 - 37.6)	2.1
3-220	4	n.a	n.a	n.a	7	6.1 (3.7 - 8.6)	1.7 (0.2 - 3.2)	2.0	11	11.4 (4.2 - 18.5)	3.5 (1.6 - 5.4)	2.1
3-221	41	45.2 (33.8 - 56.7)	15.7 (12.6 - 18.8)	2.4	149	20.8 (17.1 - 24.4)	17.5 (15.9 - 19.0)	5.9	190	26.0 (22.0 - 30.1)	17.1 (15.7 - 18.5)	4.6
3-222	107	83.6 (75.5 - 91.8)	31.7 (28.3 - 35.1)	2.7	161	48.6 (42.8 - 54.5)	27.2 (24.4 - 30.1)	3.9	268	62.6 (57.4 - 67.8)	29.0 (26.8 - 31.2)	3.2
3-223	10	68.9 (50.9 - 86.9)	42.4 (32.1 - 52.7)	4.3	10	30.8 (18.7 - 42.9)	37.4 (26.4 - 48.4)	8.5	20	49.9 (36.2 - 63.5)	39.9 (32.5 - 47.3)	5.6
Total episodes	179				331				510			

NOTE 1: Where the number of episodes < 5 details are not given for reasons of privacy and accuracy.

NOTE 2: Analysis includes first admission, complete episodes only

AN-SNAP V3 classes for Spinal Cord Dysfunction

Class	Description of AN-SNAP class
3-202	Brain, Neurological, Spinal & Major Multiple Trauma, FIM 13
3-220	Spinal Cord Dysfunction, FIM motor 81-91
3-221	Spinal Cord Dysfunction, FIM motor 47-80
3-222	Spinal Cord Dysfunction, FIM motor 14-46, age>=33
3-223	Spinal Cord Dysfunction, FIM motor 14-46, age<=32
3-238	Major Multiple Trauma, FIM total 101-126
3-239	Major Multiple Trauma, FIM total 74-100 or Burns
3-240	Major Multiple Trauma, FIM total 44-73
3-241	Major Multiple Trauma, FIM total 19-43

All Spinal Cord Dysfunction impairment codes

Traumatic spinal cord dysfunction	Non traumatic spinal cord dysfunction
4.211 Paraplegia, incomplete	4.111 Paraplegia, incomplete
4.212 Paraplegia, complete	4.112 Paraplegia, complete
4.2211 Quadriplegia, incomplete C1-4	4.1211 Quadriplegia, incomplete C1-4
4.2212 Quadriplegia, incomplete C5-8	4.1212 Quadriplegia, incomplete C5-8
4.2221 Quadriplegia, complete C1-4	4.1221 Quadriplegia, complete C1-4
4.2222 Quadriplegia, complete C5-8	4.1222 Quadriplegia, complete C5-8
4.23 Other traumatic spinal cord dysfunction	4.13 Other non-traumatic spinal cord dysfunction
Major Multiple Trauma	
14.1 Brain + spinal cord injury	
14.3 Spinal cord + multi fracture/amputation	