

Spinal Cord Dysfunction LOS and FIM Change Benchmarks in Australia & New Zealand by AN-SNAP V4, Calendar Year 2017



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												
4AZ1	39	97.8 (79.4 - 116.1)	28.6 (20.4 - 36.8)	2.0	10	54.4 (28.2 - 80.6)	11.5 (0.4 - 22.6)	1.5	49	88.9 (72.8 - 105.0)	25.1 (18.0 - 32.2)	2.0
4AZ2	43	107.9 (88.5 - 127.3)	31.5 (23.1 - 40.0)	2.0	4	n.a	n.a	n.a	47	106.4 (86.6 - 126.2)	32.9 (24.5 - 41.4)	2.2
4AD1	23	32.3 (24.3 - 40.2)	23.5 (18.2 - 28.9)	5.1	36	23.4 (16.0 - 30.7)	15.4 (11.6 - 19.2)	4.6	59	26.8 (21.3 - 32.3)	18.6 (15.3 - 21.8)	4.8
4AD2	41	74.6 (59.6 - 89.6)	39.2 (33.9 - 44.5)	3.7	19	52.5 (29.3 - 75.7)	27.0 (18.8 - 35.2)	3.6	60	67.6 (54.7 - 80.5)	35.3 (30.6 - 40.0)	3.7
4AD3	45	49.2 (35.6 - 62.9)	19.0 (14.9 - 23.0)	2.7	13	22.0 (15.6 - 28.4)	19.8 (11.6 - 27.9)	6.3	58	43.1 (32.0 - 54.2)	19.2 (15.5 - 22.8)	3.1
4AD4	41	90.0 (65.5 - 114.4)	49.2 (43.9 - 54.5)	3.8	7	54.9 (-11.9 - 121.6)	21.0 (3.7 - 38.3)	2.7	48	84.9 (61.8 - 107.9)	45.1 (39.2 - 50.9)	3.7
4AP1	18	89.9 (59.1 - 120.8)	40.9 (31.2 - 50.6)	3.2	34	39.0 (26.0 - 52.1)	29.0 (22.4 - 35.5)	5.2	52	56.7 (41.7 - 71.6)	33.1 (27.5 - 38.7)	4.1
Total episodes	250				123				373			
Non-Traumatic episodes												
4AZ1	13	102.4 (70.7 - 134.1)	33.6 (20.3 - 47.0)	2.3	13	53.3 (34.7 - 71.9)	22.8 (11.8 - 33.9)	3.0	26	77.8 (57.5 - 98.2)	28.2 (19.5 - 37.0)	2.5
4AZ2	6	144.2 (129.6 - 158.7)	46.7 (26.0 - 67.3)	2.3	2	n.a	n.a	n.a	8	120.4 (86.8 - 153.9)	38.0 (18.8 - 57.3)	2.2
4AD1	64	42.3 (34.4 - 50.2)	20.5 (17.4 - 23.6)	3.4	123	20.3 (17.7 - 22.9)	19.8 (18.0 - 21.6)	6.8	187	27.9 (24.3 - 31.4)	20.0 (18.4 - 21.6)	5.0
4AD2	75	88.1 (71.8 - 104.5)	31.5 (26.9 - 36.1)	2.5	99	42.9 (38.0 - 47.7)	25.2 (21.5 - 28.9)	4.1	174	62.4 (54.1 - 70.6)	27.9 (25.0 - 30.9)	3.1
4AD3	36	37.8 (24.6 - 51.0)	17.0 (12.7 - 21.2)	3.1	38	25.4 (14.2 - 36.5)	16.9 (13.0 - 20.8)	4.7	74	31.4 (22.7 - 40.1)	16.9 (14.1 - 19.8)	3.8
4AD4	15	89.1 (64.1 - 114.0)	34.2 (25.2 - 43.2)	2.7	8	56.0 (41.0 - 71.0)	39.8 (30.6 - 48.9)	5.0	23	77.6 (59.4 - 95.7)	36.1 (29.5 - 42.8)	3.3
Total episodes	209				283				492			

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	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 V3, Calendar Year 2017



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	52	99.0 (85.1 - 112.9)	25.7 (19.0 - 32.5)	1.8	7	95.9 (29.2 - 162.5)	9.1 (0.8 - 17.5)	0.7	59	98.6 (84.5 - 112.8)	23.8 (17.6 - 29.9)	1.7
3-220	5	22.8 (5.9 - 39.7)	7.0 (-0.5 - 14.5)	2.1	4	n.a	n.a	n.a	9	16.8 (6.8 - 26.8)	5.3 (1.2 - 9.5)	2.2
3-221	49	42.8 (30.9 - 54.7)	18.9 (15.6 - 22.2)	3.1	41	21.6 (17.1 - 26.1)	16.5 (13.0 - 20.1)	5.3	90	33.2 (26.0 - 40.3)	17.8 (15.4 - 20.2)	3.8
3-222	88	84.4 (70.7 - 98.2)	37.3 (33.0 - 41.6)	3.1	34	42.9 (28.1 - 57.8)	24.5 (17.5 - 31.4)	4.0	122	72.9 (61.6 - 84.2)	33.7 (29.9 - 37.6)	3.2
3-223	39	88.0 (65.1 - 110.9)	49.0 (42.4 - 55.7)	3.9	2	n.a	n.a	n.a	41	91.1 (68.0 - 114.2)	49.0 (42.6 - 55.4)	3.8
3-238	2	n.a	n.a	n.a	8	15.1 (10.9 - 19.4)	9.5 (4.0 - 15.0)	4.4	10	21.6 (8.2 - 35.0)	9.6 (5.4 - 13.8)	3.1
3-239	3	n.a	n.a	n.a	11	27.2 (17.7 - 36.6)	23.2 (18.6 - 27.8)	6.0	14	31.6 (22.7 - 40.6)	23.1 (18.1 - 28.2)	5.1
3-240	13	106.2 (67.8 - 144.5)	49.8 (41.3 - 58.2)	3.3	12	52.8 (28.9 - 76.8)	38.5 (30.2 - 46.8)	5.1	25	80.6 (55.6 - 105.5)	44.4 (38.1 - 50.6)	3.9
3-241	0	n.a	n.a	n.a	4	n.a	n.a	n.a	4	n.a	n.a	n.a
Total episodes	251				123				374			
Non-Traumatic episodes												
3-202	7	105.6 (56.2 - 154.9)	37.1 (13.8 - 60.4)	2.5	3	n.a	n.a	n.a	10	89.3 (50.2 - 128.4)	33.5 (16.5 - 50.5)	2.6
3-220	11	15.5 (12.2 - 18.9)	1.9 (-0.1 - 3.9)	0.9	9	14.1 (4.4 - 23.8)	3.6 (1.9 - 5.3)	1.8	20	14.9 (10.3 - 19.5)	2.7 (1.3 - 4.0)	1.2
3-221	72	37.8 (31.1 - 44.5)	17.8 (15.6 - 20.0)	3.3	132	19.9 (16.3 - 23.5)	18.1 (16.6 - 19.7)	6.4	204	26.2 (22.7 - 29.7)	18.0 (16.7 - 19.3)	4.8
3-222	112	88.0 (75.8 - 100.3)	32.7 (29.2 - 36.2)	2.6	131	43.3 (39.1 - 47.6)	26.7 (23.6 - 29.8)	4.3	243	63.9 (57.2 - 70.6)	29.5 (27.1 - 31.8)	3.2
3-223	7	103.1 (59.0 - 147.2)	42.1 (31.4 - 52.8)	2.9	8	45.4 (28.2 - 62.6)	26.6 (16.6 - 36.6)	4.1	15	72.3 (46.4 - 98.3)	33.9 (25.9 - 41.9)	3.3
Total episodes	209				283				492			

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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

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4.212 Paraplegia, complete	4.112 Paraplegia, complete
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Major Multiple Trauma	
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