

# Spinal Cord Dysfunction LOS and FIM Change Benchmarks in Australia & New Zealand by AN-SNAP V4, Financial Year 2018



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)	
<b>Traumatic episodes</b>												
4AZ1	47	120.3 (99.9 - 140.7)	30.4 (22.7 - 38.0)	1.8	12	54.2 (36.3 - 72.0)	20.3 (5.7 - 34.9)	2.6	59	106.9 (88.9 - 124.9)	28.3 (21.5 - 35.1)	1.9
4AZ2	44	120.1 (97.4 - 142.8)	30.9 (23.3 - 38.5)	1.8	0	n.a	n.a	n.a	44	120.1 (97.4 - 142.8)	30.9 (23.3 - 38.5)	1.8
4AD1	25	26.0 (19.7 - 32.4)	20.1 (14.8 - 25.5)	5.4	27	18.2 (13.6 - 22.8)	14.6 (10.1 - 19.1)	5.6	52	22.0 (18.0 - 25.9)	17.3 (13.7 - 20.8)	5.5
4AD2	32	75.0 (58.8 - 91.2)	36.8 (30.0 - 43.6)	3.4	30	60.5 (41.8 - 79.2)	26.9 (20.0 - 33.8)	3.1	62	68.0 (55.6 - 80.4)	32.0 (27.0 - 37.0)	3.3
4AD3	46	51.9 (36.6 - 67.1)	18.3 (14.3 - 22.4)	2.5	6	22.0 (11.9 - 32.1)	21.2 (6.1 - 36.3)	6.7	52	48.4 (34.6 - 62.3)	18.7 (14.7 - 22.6)	2.7
4AD4	33	116.3 (81.4 - 151.1)	45.4 (39.0 - 51.8)	2.7	9	81.6 (4.7 - 158.5)	19.3 (6.4 - 32.3)	1.7	42	108.8 (77.3 - 140.4)	39.8 (33.3 - 46.3)	2.6
4AP1	27	126.1 (83.4 - 168.9)	36.4 (28.5 - 44.4)	2.0	30	43.2 (29.3 - 57.1)	27.6 (22.0 - 33.2)	4.5	57	82.5 (58.4 - 106.6)	31.8 (26.9 - 36.7)	2.7
<b>Total episodes</b>	<b>254</b>				<b>114</b>				<b>368</b>			
<b>Non-Traumatic episodes</b>												
4AZ1	18	89.2 (62.3 - 116.0)	28.4 (16.6 - 40.1)	2.2	13	58.7 (34.8 - 82.6)	30.2 (16.8 - 43.5)	3.6	31	76.4 (57.6 - 95.2)	29.1 (20.6 - 37.7)	2.7
4AZ2	6	103.7 (61.9 - 145.4)	47.5 (26.5 - 68.5)	3.2	3	n.a	n.a	n.a	9	81.7 (46.3 - 117.0)	34.3 (15.3 - 53.4)	2.9
4AD1	57	38.9 (30.7 - 47.2)	21.4 (18.5 - 24.2)	3.8	131	20.4 (17.9 - 22.9)	18.7 (16.9 - 20.5)	6.4	188	26.0 (22.8 - 29.3)	19.5 (18.0 - 21.1)	5.3
4AD2	80	84.3 (69.4 - 99.2)	31.8 (27.3 - 36.2)	2.6	107	42.1 (37.3 - 46.9)	25.9 (22.1 - 29.6)	4.3	187	60.1 (52.6 - 67.6)	28.4 (25.5 - 31.2)	3.3
4AD3	35	38.3 (24.7 - 51.9)	17.8 (13.5 - 22.1)	3.2	45	21.1 (15.5 - 26.7)	16.0 (12.6 - 19.5)	5.3	80	28.6 (21.7 - 35.6)	16.8 (14.1 - 19.5)	4.1
4AD4	22	89.7 (71.9 - 107.5)	29.0 (20.7 - 37.3)	2.3	6	106.7 (50.8 - 162.5)	40.5 (30.6 - 50.4)	2.7	28	93.4 (75.5 - 111.2)	31.5 (24.5 - 38.4)	2.4
<b>Total episodes</b>	<b>218</b>				<b>305</b>				<b>523</b>			

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, Financial Year 2018



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)	
<b>Traumatic episodes</b>												
3-202	60	123.1 (104.3 - 141.9)	24.5 (18.4 - 30.6)	1.4	3	n.a	n.a	n.a	63	120.8 (102.7 - 138.9)	23.6 (17.7 - 29.4)	1.4
3-220	12	28.1 (15.0 - 41.2)	6.8 (3.8 - 9.7)	1.7	1	n.a	n.a	n.a	13	26.8 (14.4 - 39.3)	6.3 (3.4 - 9.2)	1.6
3-221	49	42.1 (28.5 - 55.8)	18.7 (15.5 - 21.8)	3.1	28	18.9 (14.3 - 23.6)	13.5 (9.6 - 17.3)	5.0	77	33.7 (24.5 - 42.9)	16.8 (14.3 - 19.3)	3.5
3-222	72	93.7 (77.0 - 110.4)	37.4 (32.2 - 42.7)	2.8	49	54.2 (37.5 - 70.9)	24.4 (18.8 - 30.0)	3.2	121	77.7 (65.2 - 90.2)	32.2 (28.1 - 36.2)	2.9
3-223	34	106.4 (77.0 - 135.8)	46.6 (40.6 - 52.6)	3.1	2	n.a	n.a	n.a	36	108.6 (79.6 - 137.6)	46.4 (40.8 - 52.1)	3.0
3-238	3	n.a	n.a	n.a	6	14.2 (8.7 - 19.6)	8.3 (1.6 - 15.1)	4.1	9	22.3 (7.2 - 37.4)	9.2 (4.8 - 13.7)	2.9
3-239	6	56.0 (26.3 - 85.7)	24.2 (12.7 - 35.7)	3.0	14	32.0 (18.8 - 45.2)	24.9 (21.8 - 27.9)	5.4	20	39.2 (26.1 - 52.3)	24.7 (20.9 - 28.4)	4.4
3-240	18	164.1 (107.9 - 220.3)	44.8 (35.7 - 53.8)	1.9	10	81.2 (53.4 - 109.0)	42.9 (34.7 - 51.1)	3.7	28	134.5 (94.9 - 174.1)	44.1 (37.7 - 50.5)	2.3
3-241	1	n.a	n.a	n.a	1	n.a	n.a	n.a	2	n.a	n.a	n.a
<b>Total episodes</b>	<b>255</b>				<b>114</b>				<b>369</b>			
<b>Non-Traumatic episodes</b>												
3-202	14	86.9 (56.3 - 117.5)	31.6 (16.6 - 46.5)	2.5	4	n.a	n.a	n.a	18	83.0 (57.1 - 108.9)	32.4 (19.2 - 45.7)	2.7
3-220	8	18.4 (13.6 - 23.1)	4.0 (1.8 - 6.2)	1.5	13	13.3 (6.3 - 20.3)	3.7 (2.1 - 5.3)	1.9	21	15.2 (10.5 - 20.0)	3.8 (2.6 - 5.0)	1.8
3-221	67	35.1 (27.9 - 42.4)	19.1 (16.7 - 21.4)	3.8	138	19.1 (16.8 - 21.3)	17.8 (16.3 - 19.3)	6.5	205	24.3 (21.3 - 27.3)	18.2 (17.0 - 19.5)	5.2
3-222	120	83.4 (72.4 - 94.4)	32.0 (28.5 - 35.4)	2.7	144	43.4 (38.2 - 48.5)	26.5 (23.4 - 29.6)	4.3	264	61.6 (55.3 - 67.8)	29.0 (26.6 - 31.3)	3.3
3-223	9	86.7 (50.5 - 122.9)	25.6 (12.9 - 38.2)	2.1	6	52.0 (31.4 - 72.6)	22.8 (10.9 - 34.8)	3.1	15	72.8 (48.7 - 96.9)	24.5 (15.9 - 33.0)	2.4
<b>Total episodes</b>	<b>218</b>				<b>305</b>				<b>523</b>			

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
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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
<b>Major Multiple Trauma</b>	
14.1 Brain + spinal cord injury	
14.3 Spinal cord + multi fracture/amputation	