

## Brain Dysfunction LOS and FIM Change Benchmarks in Australia and New Zealand by AN-SNAP V4, Financial Year 2020



AN-SNAP class	Specialist Brain Units				Non Specialist Brain 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>												
4AZ1	40	109.4 (89.3 - 129.4)	65.3 (55.2 - 75.5)	4.2	27	49.0 (26.9 - 71.0)	33.8 (22.8 - 44.9)	4.8	67	85.0 (68.6 - 101.4)	52.6 (44.3 - 60.9)	4.3
4AZ2	54	114.4 (94.1 - 134.6)	63.3 (55.4 - 71.3)	3.9	4	n.a n.a	n.a n.a	n.a	58	113.6 (94.5 - 132.7)	63.2 (55.7 - 70.8)	3.9
4AB1	55	17.9 (13.6 - 22.1)	9.0 (7.2 - 10.8)	3.5	88	9.7 (8.5 - 10.8)	10.9 (9.3 - 12.5)	7.9	143	12.8 (10.9 - 14.7)	10.2 (9.0 - 11.4)	5.6
4AB2	130	29.2 (22.5 - 35.8)	17.4 (15.8 - 18.9)	4.2	49	18.3 (14.3 - 22.3)	15.8 (13.3 - 18.2)	6.0	179	26.2 (21.2 - 31.2)	16.9 (15.6 - 18.2)	4.5
4AB3	24	23.5 (16.0 - 30.9)	29.4 (24.5 - 34.3)	8.8	155	16.4 (14.9 - 17.9)	23.8 (22.1 - 25.4)	10.1	179	17.4 (15.7 - 19.0)	24.5 (23.0 - 26.1)	9.9
4AB4	64	33.8 (23.5 - 44.1)	36.1 (32.9 - 39.3)	7.5	130	19.2 (17.2 - 21.2)	24.0 (21.9 - 26.0)	8.7	194	24.0 (20.3 - 27.8)	28.0 (26.1 - 29.9)	8.2
4AB5	66	48.7 (39.4 - 58.1)	43.8 (40.5 - 47.1)	6.3	50	27.5 (22.8 - 32.2)	28.4 (23.9 - 32.8)	7.2	116	39.6 (33.6 - 45.5)	37.1 (34.1 - 40.2)	6.6
4AB6	31	62.6 (47.8 - 77.4)	48.7 (41.2 - 56.1)	5.4	49	31.8 (27.0 - 36.6)	29.2 (22.9 - 35.4)	6.4	80	43.8 (36.5 - 51.0)	36.7 (31.5 - 42.0)	5.9
4AB7	21	99.5 (38.2 - 160.8)	67.5 (61.1 - 74.0)	4.8	33	39.2 (29.3 - 49.1)	34.4 (26.7 - 42.2)	6.1	54	62.7 (36.9 - 88.4)	47.3 (40.4 - 54.2)	5.3
4AP1	158	40.1 (35.2 - 45.0)	38.7 (35.4 - 41.9)	6.8	158	31.5 (26.9 - 36.0)	34.5 (31.9 - 37.1)	7.7	316	35.8 (32.4 - 39.2)	36.6 (34.5 - 38.6)	7.2
<b>Total episodes</b>	<b>643</b>				<b>743</b>				<b>1,386</b>			
<b>Non-Traumatic episodes</b>												
4AZ1	13	114.8 (79.3 - 150.4)	69.1 (54.6 - 83.5)	4.2	74	55.1 (46.5 - 63.7)	35.4 (29.4 - 41.5)	4.5	87	64.0 (54.0 - 74.0)	40.4 (34.3 - 46.6)	4.4
4AZ2	16	190.0 (93.8 - 286.2)	38.6 (21.4 - 55.7)	1.4	8	144.0 (49.3 - 238.7)	46.6 (20.0 - 73.2)	2.3	24	174.7 (104.0 - 245.3)	41.3 (27.1 - 55.4)	1.7
4AB1	45	11.5 (9.8 - 13.3)	11.4 (9.5 - 13.2)	6.9	238	11.3 (10.5 - 12.1)	11.3 (10.4 - 12.2)	7.0	283	11.4 (10.6 - 12.1)	11.3 (10.5 - 12.1)	7.0
4AB2	60	32.5 (25.5 - 39.4)	15.9 (13.9 - 17.8)	3.4	109	16.8 (15.1 - 18.5)	13.7 (12.1 - 15.2)	5.7	169	22.4 (19.5 - 25.3)	14.5 (13.2 - 15.7)	4.5
4AB3	35	21.3 (16.3 - 26.4)	22.5 (19.2 - 25.7)	7.4	310	17.0 (15.9 - 18.2)	23.5 (22.4 - 24.7)	9.7	345	17.5 (16.3 - 18.7)	23.4 (22.4 - 24.5)	9.4
4AB4	40	29.3 (24.0 - 34.6)	30.7 (25.9 - 35.5)	7.3	269	21.3 (19.1 - 23.4)	24.7 (23.0 - 26.3)	8.1	309	22.3 (20.3 - 24.3)	25.5 (23.9 - 27.0)	8.0
4AB5	31	38.9 (23.1 - 54.6)	35.8 (29.7 - 42.0)	6.5	92	29.3 (25.1 - 33.5)	25.2 (21.5 - 29.0)	6.0	123	31.7 (26.6 - 36.8)	27.9 (24.6 - 31.2)	6.2
4AB6	14	65.8 (31.6 - 100.0)	43.1 (29.1 - 57.2)	4.6	119	31.0 (26.9 - 35.1)	34.2 (30.4 - 37.9)	7.7	133	34.7 (29.3 - 40.0)	35.1 (31.4 - 38.8)	7.1
4AB7	16	66.2 (45.0 - 87.4)	51.3 (39.4 - 63.1)	5.4	89	41.3 (34.7 - 47.9)	38.0 (32.6 - 43.5)	6.4	105	45.1 (38.5 - 51.7)	40.0 (35.0 - 45.1)	6.2
<b>Total episodes</b>	<b>270</b>				<b>1,308</b>				<b>1,578</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 Brain 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
4AB1	Brain dysfunction, weighted FIM motor 71-91, FIM cognition 26-35
4AB2	Brain dysfunction, weighted FIM motor 71-91, FIM cognition 5-25
4AB3	Brain dysfunction, weighted FIM motor 41-70, FIM cognition 26-35
4AB4	Brain dysfunction, weighted FIM motor 41-70, FIM cognition 17-25
4AB5	Brain dysfunction, weighted FIM motor 41-70, FIM cognition 5-16
4AB6	Brain dysfunction, weighted FIM motor 29-40
4AB7	Brain dysfunction, weighted FIM motor 19-28
4AP1	Major Multiple Trauma, weighted FIM motor 19-91

### All Brain Dysfunction impairment codes

Non-traumatic brain dysfunction
2.11 Sub-arachnoid haemorrhage
2.12 Anoxic brain damage
2.13 Other non-traumatic brain dysfunction
Traumatic brain dysfunction
2.21 Open injury
2.22 Closed injury
Major Multiple Trauma
14.1 Brain + spinal cord injury
14.2 Brain + multiple fracture/amputation

## Brain Dysfunction LOS and FIM Change Benchmarks in Australia and New Zealand by AN-SNAP V3, Financial Year 2020



AN-SNAP class	Specialist Brain Units			Non Specialist Brain 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	63	126.1 (107.0 - 145.2)	64.3 (56.5 - 72.1)	3.6	16	53.5 (32.3 - 74.7)	36.6 (19.5 - 53.7)	4.8	79	111.4 (94.4 - 128.4)	58.7 (51.3 - 66.2)	3.7
3-210	10	10.3 (7.1 - 13.5)	10.1 (4.2 - 16.0)	6.9	71	11.0 (9.6 - 12.3)	14.3 (12.3 - 16.3)	9.1	81	10.9 (9.7 - 12.1)	13.8 (11.9 - 15.6)	8.8
3-211	93	19.6 (16.4 - 22.8)	13.8 (11.8 - 15.7)	4.9	138	13.3 (12.0 - 14.6)	17.6 (16.1 - 19.0)	9.2	231	15.8 (14.3 - 17.4)	16.0 (14.8 - 17.2)	7.1
3-212	54	22.0 (18.4 - 25.6)	20.9 (18.0 - 23.9)	6.7	34	15.9 (13.5 - 18.3)	18.0 (14.5 - 21.6)	7.9	88	19.7 (17.2 - 22.1)	19.8 (17.5 - 22.1)	7.1
3-213	116	40.6 (32.1 - 49.2)	27.9 (25.5 - 30.2)	4.8	52	24.7 (19.8 - 29.7)	22.7 (19.7 - 25.7)	6.4	168	35.7 (29.5 - 41.9)	26.3 (24.4 - 28.1)	5.1
3-214	102	50.0 (41.6 - 58.4)	46.1 (42.6 - 49.6)	6.4	237	24.3 (22.2 - 26.3)	27.6 (25.5 - 29.7)	8.0	339	32.0 (28.9 - 35.2)	33.1 (31.1 - 35.2)	7.2
3-215	32	101.0 (59.7 - 142.2)	62.8 (54.3 - 71.3)	4.4	34	36.9 (27.8 - 46.1)	34.8 (26.5 - 43.1)	6.6	66	68.0 (46.0 - 90.0)	48.3 (41.5 - 55.2)	5.0
3-238	24	16.0 (11.2 - 20.8)	11.0 (7.8 - 14.1)	4.8	14	16.4 (7.9 - 25.0)	11.6 (9.0 - 14.3)	5.0	38	16.2 (11.9 - 20.4)	11.2 (9.0 - 13.4)	4.8
3-239	56	27.8 (24.5 - 31.0)	31.0 (28.5 - 33.6)	7.8	72	18.8 (15.5 - 22.1)	26.0 (24.0 - 28.1)	9.7	128	22.7 (20.3 - 25.2)	28.2 (26.6 - 29.9)	8.7
3-240	56	50.3 (42.0 - 58.7)	47.7 (44.1 - 51.4)	6.6	72	48.0 (40.0 - 56.0)	46.5 (43.4 - 49.7)	6.8	128	49.0 (43.2 - 54.8)	47.1 (44.7 - 49.4)	6.7
3-241	37	74.9 (62.0 - 87.8)	68.8 (61.1 - 76.5)	6.4	3	n.a n.a	n.a n.a	n.a	40	78.8 (61.6 - 96.0)	68.7 (61.4 - 75.9)	6.1
<b>Total episodes</b>	<b>643</b>				<b>743</b>				<b>1,386</b>			
<b>Non-Traumatic episodes</b>												
3-202	18	204.7 (121.3 - 288.0)	44.0 (27.8 - 60.2)	1.5	46	73.4 (54.2 - 92.7)	37.2 (29.2 - 45.1)	3.5	64	110.3 (80.0 - 140.7)	39.1 (31.8 - 46.4)	2.5
3-210	21	11.5 (8.7 - 14.4)	13.0 (10.2 - 15.8)	7.9	180	12.2 (11.0 - 13.4)	14.5 (13.3 - 15.7)	8.3	201	12.1 (11.0 - 13.2)	14.4 (13.3 - 15.5)	8.3
3-211	61	16.7 (13.6 - 19.8)	14.9 (12.8 - 17.0)	6.3	331	14.1 (13.3 - 15.0)	16.8 (15.8 - 17.9)	8.3	392	14.5 (13.7 - 15.4)	16.5 (15.6 - 17.5)	8.0
3-212	26	29.4 (21.0 - 37.8)	18.5 (14.5 - 22.4)	4.4	100	17.7 (15.5 - 19.9)	18.3 (16.2 - 20.5)	7.2	126	20.1 (17.6 - 22.7)	18.4 (16.5 - 20.3)	6.4
3-213	56	37.2 (30.4 - 43.9)	25.4 (22.1 - 28.7)	4.8	88	25.7 (20.0 - 31.5)	18.4 (15.7 - 21.0)	5.0	144	30.2 (25.7 - 34.7)	21.1 (19.0 - 23.2)	4.9
3-214	66	43.3 (31.3 - 55.4)	35.5 (30.4 - 40.6)	5.7	460	25.5 (23.8 - 27.1)	29.7 (28.1 - 31.3)	8.2	526	27.7 (25.6 - 29.8)	30.4 (28.8 - 32.0)	7.7
3-215	22	66.0 (50.6 - 81.5)	59.4 (47.3 - 71.5)	6.3	103	46.8 (39.3 - 54.3)	37.7 (32.5 - 42.9)	5.6	125	50.2 (43.4 - 57.0)	41.5 (36.6 - 46.4)	5.8
<b>Total episodes</b>	<b>270</b>				<b>1,308</b>				<b>1,578</b>			

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### AN-SNAP V3 classes for Brain Dysfunction

Class	Description of AN-SNAP class
3-202	Brain, Neurological, Spinal & Major Multiple Trauma, FIM 13
3-210	Brain Dysfunction, FIM motor 56-91, FIM cognition 32-35
3-211	Brain Dysfunction, FIM motor 56-91, FIM cognition 24-31
3-212	Brain Dysfunction, FIM motor 56-91, FIM cognition 20-23
3-213	Brain Dysfunction, FIM motor 56-91, FIM cognition 5-19
3-214	Brain Dysfunction, FIM motor 24-55
3-215	Brain Dysfunction, FIM motor 14-23
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

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Non-traumatic brain dysfunction
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