

Brain Dysfunction LOS and FIM Change Benchmarks in Australia and New Zealand by AN-SNAP V4, Financial Year 2018



| AN-SNAP class | Specialist Brain Units | | | | Non Specialist Brain Units | | | | All AROC Facilities | | | |
|-------------------------------|------------------------|----------------------|--------------------|----------|----------------------------|---------------------|--------------------|----------|---------------------|----------------------|--------------------|----------|
| | Length of stay | | FIM change | FIM gain | Length of stay | | FIM change | FIM gain | Length of stay | | FIM change | FIM gain |
| | No. | Mean (95%CI) | Mean (95%CI) | per week | No. | Mean (95%CI) | Mean (95%CI) | per week | No. | Mean (95%CI) | Mean (95%CI) | per week |
| Traumatic episodes | | | | | | | | | | | | |
| 4AZ1 | 55 | 93.6 (78.0 - 109.2) | 64.7 (56.3 - 73.1) | 4.8 | 23 | 46.4 (32.8 - 60.0) | 47.0 (34.8 - 59.3) | 7.1 | 78 | 79.7 (67.1 - 92.3) | 59.5 (52.4 - 66.7) | 5.2 |
| 4AZ2 | 56 | 113.4 (88.0 - 138.7) | 77.5 (70.5 - 84.4) | 4.8 | 8 | 65.8 (35.5 - 96.0) | 66.8 (56.3 - 77.3) | 7.1 | 64 | 107.4 (84.6 - 130.2) | 76.1 (69.9 - 82.4) | 5.0 |
| 4AB1 | 96 | 13.8 (11.9 - 15.8) | 9.6 (8.1 - 11.1) | 4.9 | 106 | 10.9 (9.8 - 12.0) | 10.4 (9.0 - 11.9) | 6.7 | 202 | 12.3 (11.2 - 13.4) | 10.0 (9.0 - 11.1) | 5.7 |
| 4AB2 | 164 | 25.2 (19.8 - 30.7) | 18.0 (16.6 - 19.5) | 5.0 | 48 | 18.8 (15.7 - 21.9) | 14.8 (12.4 - 17.2) | 5.5 | 212 | 23.8 (19.5 - 28.0) | 17.3 (16.1 - 18.6) | 5.1 |
| 4AB3 | 29 | 22.4 (17.8 - 27.1) | 29.8 (27.1 - 32.5) | 9.3 | 153 | 17.9 (15.7 - 20.1) | 23.3 (21.7 - 24.8) | 9.1 | 182 | 18.6 (16.6 - 20.6) | 24.3 (22.9 - 25.7) | 9.2 |
| 4AB4 | 84 | 33.9 (26.4 - 41.4) | 34.2 (31.5 - 36.8) | 7.1 | 133 | 21.2 (19.2 - 23.2) | 26.1 (23.7 - 28.5) | 8.6 | 217 | 26.1 (22.8 - 29.4) | 29.2 (27.3 - 31.1) | 7.8 |
| 4AB5 | 84 | 44.7 (38.9 - 50.5) | 41.7 (38.4 - 45.0) | 6.5 | 41 | 26.1 (20.9 - 31.2) | 27.4 (22.0 - 32.8) | 7.4 | 125 | 38.6 (34.1 - 43.1) | 37.0 (34.0 - 40.1) | 6.7 |
| 4AB6 | 29 | 62.1 (36.3 - 87.9) | 61.9 (56.2 - 67.6) | 7.0 | 55 | 28.4 (25.3 - 31.6) | 32.2 (26.7 - 37.6) | 7.9 | 84 | 40.0 (30.4 - 49.7) | 42.4 (37.4 - 47.5) | 7.4 |
| 4AB7 | 28 | 62.1 (50.1 - 74.2) | 64.8 (56.1 - 73.5) | 7.3 | 29 | 36.7 (28.2 - 45.1) | 31.3 (22.3 - 40.3) | 6.0 | 57 | 49.2 (41.1 - 57.2) | 47.8 (40.1 - 55.4) | 6.8 |
| 4AP1 | 187 | 39.7 (35.0 - 44.3) | 38.5 (35.6 - 41.5) | 6.8 | 126 | 31.6 (25.9 - 37.4) | 30.0 (27.1 - 32.9) | 6.6 | 313 | 36.4 (32.8 - 40.0) | 35.1 (32.9 - 37.3) | 6.7 |
| Total episodes | 812 | | | | 722 | | | | 1,534 | | | |
| Non-Traumatic episodes | | | | | | | | | | | | |
| 4AZ1 | 13 | 91.7 (61.7 - 121.7) | 47.0 (30.3 - 63.7) | 3.6 | 64 | 45.3 (35.7 - 55.0) | 31.3 (24.3 - 38.3) | 4.8 | 77 | 53.2 (43.0 - 63.3) | 34.0 (27.4 - 40.5) | 4.5 |
| 4AZ2 | 12 | 111.8 (62.6 - 160.9) | 47.3 (30.6 - 64.0) | 3.0 | 11 | 90.2 (62.4 - 118.0) | 39.0 (21.6 - 56.4) | 3.0 | 23 | 101.4 (72.6 - 130.2) | 43.3 (31.4 - 55.3) | 3.0 |
| 4AB1 | 61 | 12.1 (10.2 - 13.9) | 11.5 (9.7 - 13.2) | 6.6 | 240 | 11.4 (10.6 - 12.2) | 10.8 (9.9 - 11.6) | 6.6 | 301 | 11.5 (10.8 - 12.2) | 10.9 (10.2 - 11.7) | 6.6 |
| 4AB2 | 76 | 28.9 (23.1 - 34.6) | 14.7 (12.6 - 16.8) | 3.6 | 98 | 19.2 (16.5 - 22.0) | 13.3 (11.6 - 15.0) | 4.8 | 174 | 23.4 (20.4 - 26.5) | 13.9 (12.6 - 15.2) | 4.1 |
| 4AB3 | 39 | 23.2 (17.3 - 29.1) | 25.5 (21.8 - 29.2) | 7.7 | 300 | 18.3 (16.6 - 19.9) | 22.7 (21.4 - 24.0) | 8.7 | 339 | 18.8 (17.2 - 20.5) | 23.0 (21.8 - 24.2) | 8.6 |
| 4AB4 | 36 | 29.4 (21.7 - 37.2) | 28.7 (23.8 - 33.6) | 6.8 | 216 | 23.7 (21.5 - 26.0) | 23.9 (21.8 - 26.0) | 7.0 | 252 | 24.6 (22.3 - 26.8) | 24.6 (22.7 - 26.5) | 7.0 |
| 4AB5 | 34 | 44.4 (35.2 - 53.6) | 34.5 (29.2 - 39.7) | 5.4 | 78 | 25.6 (21.6 - 29.6) | 25.1 (21.3 - 28.9) | 6.9 | 112 | 31.3 (27.1 - 35.5) | 28.0 (24.8 - 31.2) | 6.3 |
| 4AB6 | 24 | 52.4 (38.0 - 66.9) | 44.3 (36.2 - 52.4) | 5.9 | 123 | 29.6 (26.0 - 33.3) | 29.7 (25.5 - 34.0) | 7.0 | 147 | 33.3 (29.3 - 37.4) | 32.1 (28.2 - 36.0) | 6.7 |
| 4AB7 | 17 | 92.6 (52.2 - 132.9) | 52.8 (40.5 - 65.2) | 4.0 | 73 | 38.2 (29.7 - 46.8) | 32.4 (26.2 - 38.6) | 5.9 | 90 | 48.5 (37.5 - 59.5) | 36.3 (30.5 - 42.0) | 5.2 |
| Total episodes | 312 | | | | 1,203 | | | | 1,515 | | | |

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 2018



| AN-SNAP class | Specialist Brain Units | | | | Non Specialist Brain Units | | | | All AROC Facilities | | | |
|-------------------------------|------------------------|----------------------|--------------------|----------|----------------------------|--------------------|--------------------|----------|---------------------|----------------------|--------------------|----------|
| | Length of stay | | FIM change | FIM gain | Length of stay | | FIM change | FIM gain | Length of stay | | FIM change | FIM gain |
| | No. | Mean (95%CI) | Mean (95%CI) | per week | No. | Mean (95%CI) | Mean (95%CI) | per week | No. | Mean (95%CI) | Mean (95%CI) | per week |
| Traumatic episodes | | | | | | | | | | | | |
| 3-202 | 71 | 115.4 (94.1 - 136.7) | 70.2 (62.6 - 77.8) | 4.3 | 14 | 54.7 (30.9 - 78.6) | 40.1 (22.4 - 57.8) | 5.1 | 85 | 105.4 (86.7 - 124.2) | 65.2 (57.9 - 72.5) | 4.3 |
| 3-210 | 20 | 12.4 (8.9 - 15.8) | 9.2 (5.8 - 12.6) | 5.2 | 90 | 11.3 (10.0 - 12.5) | 13.6 (11.7 - 15.6) | 8.5 | 110 | 11.5 (10.2 - 12.7) | 12.8 (11.1 - 14.5) | 7.8 |
| 3-211 | 137 | 16.0 (14.3 - 17.6) | 14.2 (12.6 - 15.9) | 6.2 | 139 | 14.0 (12.7 - 15.3) | 17.2 (15.6 - 18.7) | 8.6 | 276 | 15.0 (13.9 - 16.0) | 15.7 (14.5 - 16.9) | 7.3 |
| 3-212 | 83 | 25.3 (20.1 - 30.5) | 19.8 (17.5 - 22.0) | 5.5 | 44 | 18.1 (15.0 - 21.1) | 19.7 (16.3 - 23.1) | 7.6 | 127 | 22.8 (19.2 - 26.4) | 19.7 (17.9 - 21.6) | 6.1 |
| 3-213 | 135 | 34.9 (27.9 - 41.9) | 27.6 (25.6 - 29.5) | 5.5 | 50 | 24.7 (19.9 - 29.6) | 21.0 (18.2 - 23.9) | 6.0 | 185 | 32.1 (26.8 - 37.4) | 25.8 (24.1 - 27.5) | 5.6 |
| 3-214 | 117 | 47.7 (39.3 - 56.2) | 49.2 (45.9 - 52.4) | 7.2 | 219 | 24.9 (23.0 - 26.8) | 29.1 (26.8 - 31.4) | 8.2 | 336 | 32.9 (29.5 - 36.3) | 36.1 (33.9 - 38.2) | 7.7 |
| 3-215 | 46 | 80.5 (66.1 - 95.0) | 67.2 (59.7 - 74.6) | 5.8 | 33 | 38.9 (29.9 - 48.0) | 40.4 (31.2 - 49.6) | 7.3 | 79 | 63.2 (52.9 - 73.4) | 56.0 (49.6 - 62.4) | 6.2 |
| 3-238 | 26 | 14.4 (11.4 - 17.4) | 13.0 (10.8 - 15.2) | 6.3 | 18 | 13.6 (9.2 - 18.0) | 9.8 (7.4 - 12.3) | 5.1 | 44 | 14.1 (11.6 - 16.6) | 11.7 (10.0 - 13.4) | 5.8 |
| 3-239 | 63 | 25.8 (22.5 - 29.2) | 26.9 (24.3 - 29.5) | 7.3 | 67 | 22.2 (19.2 - 25.2) | 26.0 (23.4 - 28.6) | 8.2 | 130 | 24.0 (21.7 - 26.2) | 26.4 (24.6 - 28.3) | 7.7 |
| 3-240 | 77 | 50.9 (43.8 - 58.1) | 50.3 (47.3 - 53.3) | 6.9 | 44 | 55.7 (42.2 - 69.2) | 48.0 (43.6 - 52.4) | 6.0 | 121 | 52.7 (46.0 - 59.3) | 49.5 (47.0 - 51.9) | 6.6 |
| 3-241 | 37 | 68.1 (55.4 - 80.8) | 70.5 (63.9 - 77.1) | 7.2 | 4 | n.a n.a | n.a n.a | n.a | 41 | 66.3 (54.4 - 78.2) | 69.0 (62.7 - 75.4) | 7.3 |
| Total episodes | 812 | | | | 722 | | | | 1,534 | | | |
| Non-Traumatic episodes | | | | | | | | | | | | |
| 3-202 | 19 | 99.5 (64.6 - 134.4) | 44.2 (30.4 - 57.9) | 3.1 | 36 | 60.4 (43.5 - 77.4) | 34.0 (24.3 - 43.7) | 3.9 | 55 | 73.9 (56.9 - 91.0) | 37.5 (29.5 - 45.5) | 3.6 |
| 3-210 | 32 | 13.4 (10.5 - 16.3) | 16.5 (14.0 - 19.0) | 8.6 | 176 | 11.3 (10.3 - 12.4) | 13.0 (11.9 - 14.1) | 8.0 | 208 | 11.6 (10.7 - 12.6) | 13.5 (12.5 - 14.6) | 8.1 |
| 3-211 | 75 | 15.6 (12.8 - 18.4) | 14.5 (12.3 - 16.8) | 6.5 | 312 | 15.0 (13.8 - 16.1) | 16.1 (15.0 - 17.2) | 7.5 | 387 | 15.1 (14.0 - 16.2) | 15.8 (14.8 - 16.7) | 7.3 |
| 3-212 | 28 | 23.9 (17.1 - 30.7) | 16.7 (12.7 - 20.7) | 4.9 | 75 | 20.1 (17.5 - 22.7) | 15.5 (12.3 - 18.7) | 5.4 | 103 | 21.1 (18.4 - 23.8) | 15.8 (13.3 - 18.4) | 5.3 |
| 3-213 | 74 | 35.5 (29.1 - 41.9) | 21.5 (18.5 - 24.6) | 4.2 | 78 | 26.7 (21.1 - 32.3) | 19.8 (16.8 - 22.8) | 5.2 | 152 | 31.0 (26.7 - 35.3) | 20.7 (18.5 - 22.8) | 4.7 |
| 3-214 | 64 | 47.6 (39.4 - 55.8) | 40.5 (35.8 - 45.2) | 6.0 | 435 | 26.1 (24.4 - 27.8) | 27.6 (25.9 - 29.4) | 7.4 | 499 | 28.9 (27.0 - 30.8) | 29.3 (27.6 - 31.0) | 7.1 |
| 3-215 | 20 | 96.9 (62.0 - 131.7) | 52.2 (40.7 - 63.6) | 3.8 | 91 | 41.3 (33.4 - 49.3) | 33.1 (27.5 - 38.7) | 5.6 | 111 | 51.3 (41.5 - 61.2) | 36.5 (31.3 - 41.7) | 5.0 |
| Total episodes | 312 | | | | 1,203 | | | | 1,515 | | | |

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 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 |

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 |