

Brain Dysfunction LOS and FIM Change Benchmarks in Australia and New Zealand by AN-SNAP V4, Calendar Year 2015



| 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 | 34 | 126.4 (99.0 - 153.8) | 57.1 (44.6 - 69.6) | 3.2 | 16 | 102.9 (56.4 - 149.4) | 39.4 (24.1 - 54.6) | 2.7 | 50 | 118.9 (95.3 - 142.5) | 51.4 (41.5 - 61.4) | 3.0 |
| 4AZ2 | 57 | 134.4 (106.4 - 162.4) | 61.4 (52.6 - 70.2) | 3.2 | 10 | 68.2 (30.4 - 106.0) | 44.5 (21.7 - 67.3) | 4.6 | 67 | 124.6 (99.7 - 149.4) | 58.9 (50.7 - 67.2) | 3.3 |
| 4AB1 | 154 | 14.7 (13.4 - 16.1) | 9.7 (8.5 - 10.9) | 4.6 | 89 | 12.4 (10.7 - 14.1) | 11.0 (9.5 - 12.5) | 6.2 | 243 | 13.9 (12.8 - 14.9) | 10.1 (9.2 - 11.1) | 5.1 |
| 4AB2 | 137 | 25.1 (21.7 - 28.6) | 16.3 (14.7 - 17.8) | 4.5 | 65 | 23.4 (13.6 - 33.2) | 13.3 (11.0 - 15.7) | 4.0 | 202 | 24.6 (20.7 - 28.5) | 15.3 (14.0 - 16.6) | 4.4 |
| 4AB3 | 50 | 23.7 (19.5 - 27.9) | 29.2 (26.3 - 32.1) | 8.6 | 119 | 18.0 (15.5 - 20.5) | 19.8 (17.9 - 21.7) | 7.7 | 169 | 19.7 (17.5 - 21.9) | 22.6 (20.9 - 24.3) | 8.0 |
| 4AB4 | 61 | 31.5 (25.9 - 37.1) | 38.3 (35.3 - 41.3) | 8.5 | 122 | 23.7 (21.3 - 26.1) | 23.3 (20.9 - 25.8) | 6.9 | 183 | 26.3 (23.8 - 28.8) | 28.3 (26.1 - 30.5) | 7.5 |
| 4AB5 | 50 | 45.9 (34.8 - 57.0) | 43.9 (39.9 - 47.9) | 6.7 | 46 | 28.7 (20.7 - 36.7) | 29.1 (23.7 - 34.5) | 7.1 | 96 | 37.6 (30.5 - 44.8) | 36.8 (33.2 - 40.5) | 6.8 |
| 4AB6 | 28 | 65.9 (49.5 - 82.3) | 55.5 (48.9 - 62.1) | 5.9 | 47 | 27.6 (22.7 - 32.5) | 32.4 (26.7 - 38.0) | 8.2 | 75 | 41.9 (34.0 - 49.9) | 41.0 (36.0 - 46.0) | 6.8 |
| 4AB7 | 28 | 64.3 (49.1 - 79.4) | 54.5 (42.7 - 66.3) | 5.9 | 25 | 37.1 (27.2 - 47.1) | 31.8 (22.9 - 40.7) | 6.0 | 53 | 51.5 (41.6 - 61.4) | 43.8 (35.7 - 51.8) | 6.0 |
| 4AP1 | 216 | 39.2 (34.7 - 43.7) | 33.5 (30.7 - 36.3) | 6.0 | 110 | 38.1 (32.0 - 44.2) | 30.9 (27.2 - 34.5) | 5.7 | 326 | 38.8 (35.2 - 42.4) | 32.6 (30.4 - 34.8) | 5.9 |
| Total episodes | 815 | | | | 649 | | | | 1,464 | | | |
| Non-Traumatic episodes | | | | | | | | | | | | |
| 4AZ1 | 16 | 79.9 (59.1 - 100.8) | 42.6 (25.9 - 59.4) | 3.7 | 47 | 55.1 (41.7 - 68.6) | 29.1 (21.8 - 36.4) | 3.7 | 63 | 61.4 (49.8 - 73.1) | 32.5 (25.5 - 39.6) | 3.7 |
| 4AZ2 | 13 | 129.6 (82.1 - 177.1) | 48.5 (29.9 - 67.2) | 2.6 | 15 | 73.4 (50.7 - 96.1) | 42.8 (24.4 - 61.2) | 4.1 | 28 | 99.5 (72.7 - 126.3) | 45.5 (32.5 - 58.4) | 3.2 |
| 4AB1 | 113 | 12.5 (11.3 - 13.7) | 10.0 (8.7 - 11.2) | 5.6 | 253 | 12.8 (11.8 - 13.8) | 9.4 (8.5 - 10.2) | 5.1 | 366 | 12.7 (11.9 - 13.5) | 9.5 (8.8 - 10.3) | 5.3 |
| 4AB2 | 64 | 30.8 (23.5 - 38.2) | 11.2 (8.9 - 13.5) | 2.5 | 124 | 22.6 (17.7 - 27.5) | 12.5 (10.9 - 14.0) | 3.9 | 188 | 25.4 (21.3 - 29.5) | 12.0 (10.7 - 13.3) | 3.3 |
| 4AB3 | 62 | 21.3 (18.5 - 24.1) | 25.8 (22.7 - 28.9) | 8.5 | 274 | 19.3 (17.5 - 21.0) | 22.1 (20.8 - 23.3) | 8.0 | 336 | 19.6 (18.1 - 21.1) | 22.7 (21.5 - 24.0) | 8.1 |
| 4AB4 | 39 | 27.8 (22.5 - 33.1) | 33.9 (30.2 - 37.7) | 8.5 | 181 | 22.3 (20.2 - 24.3) | 24.4 (22.4 - 26.4) | 7.7 | 220 | 23.3 (21.3 - 25.2) | 26.1 (24.3 - 27.9) | 7.9 |
| 4AB5 | 21 | 53.5 (32.6 - 74.4) | 31.0 (23.2 - 38.7) | 4.1 | 94 | 25.4 (22.1 - 28.8) | 26.2 (23.0 - 29.4) | 7.2 | 115 | 30.6 (25.5 - 35.6) | 27.1 (24.1 - 30.0) | 6.2 |
| 4AB6 | 30 | 56.0 (38.2 - 73.8) | 40.6 (31.2 - 50.0) | 5.1 | 108 | 33.0 (29.0 - 36.9) | 31.2 (27.1 - 35.2) | 6.6 | 138 | 38.0 (32.8 - 43.2) | 33.2 (29.4 - 37.1) | 6.1 |
| 4AB7 | 19 | 63.5 (46.1 - 80.8) | 51.2 (35.8 - 66.7) | 5.6 | 84 | 44.6 (38.7 - 50.5) | 35.3 (29.5 - 41.1) | 5.5 | 103 | 48.1 (42.2 - 54.0) | 38.2 (32.5 - 43.9) | 5.6 |
| Total episodes | 377 | | | | 1,180 | | | | 1,557 | | | |

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

NOTE 2: Incomplete episodes are excluded from analysis

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, Calendar Year 2015



| 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 | 70 | 141.9 (116.9 - 166.9) | 59.7 (51.2 - 68.1) | 2.9 | 16 | 103.8 (54.5 - 153.0) | 40.3 (23.8 - 56.7) | 2.7 | 86 | 134.8 (112.4 - 157.2) | 56.1 (48.4 - 63.7) | 2.9 |
| 3-210 | 35 | 14.7 (11.1 - 18.4) | 12.3 (9.3 - 15.3) | 5.8 | 59 | 12.9 (11.5 - 14.4) | 14.4 (12.3 - 16.4) | 7.8 | 94 | 13.6 (12.0 - 15.3) | 13.6 (11.9 - 15.3) | 7.0 |
| 3-211 | 192 | 17.0 (15.6 - 18.4) | 12.2 (10.9 - 13.6) | 5.0 | 156 | 18.7 (14.6 - 22.7) | 14.9 (13.4 - 16.4) | 5.6 | 348 | 17.7 (15.8 - 19.7) | 13.4 (12.4 - 14.4) | 5.3 |
| 3-212 | 73 | 27.5 (22.0 - 33.1) | 20.8 (18.1 - 23.5) | 5.3 | 52 | 18.0 (14.7 - 21.3) | 18.2 (15.3 - 21.1) | 7.1 | 125 | 23.6 (20.0 - 27.1) | 19.7 (17.7 - 21.7) | 5.9 |
| 3-213 | 74 | 31.8 (26.1 - 37.4) | 27.1 (24.1 - 30.1) | 6.0 | 48 | 25.3 (18.3 - 32.3) | 19.5 (15.7 - 23.4) | 5.4 | 122 | 29.2 (24.8 - 33.6) | 24.1 (21.7 - 26.6) | 5.8 |
| 3-214 | 115 | 45.4 (38.5 - 52.3) | 47.2 (44.2 - 50.3) | 7.3 | 180 | 26.7 (23.6 - 29.8) | 28.6 (26.0 - 31.2) | 7.5 | 295 | 34.0 (30.6 - 37.4) | 35.8 (33.6 - 38.1) | 7.4 |
| 3-215 | 30 | 86.6 (70.7 - 102.4) | 53.7 (41.5 - 65.9) | 4.3 | 25 | 36.2 (27.2 - 45.1) | 33.6 (23.1 - 44.1) | 6.5 | 55 | 63.7 (52.0 - 75.3) | 44.5 (35.9 - 53.1) | 4.9 |
| 3-238 | 42 | 18.4 (14.4 - 22.3) | 9.0 (7.5 - 10.4) | 3.4 | 16 | 12.9 (7.9 - 17.9) | 9.9 (6.2 - 13.6) | 5.3 | 58 | 16.9 (13.7 - 20.1) | 9.2 (7.8 - 10.7) | 3.8 |
| 3-239 | 84 | 26.8 (23.3 - 30.3) | 27.9 (26.0 - 29.8) | 7.3 | 47 | 27.5 (21.1 - 33.9) | 27.2 (23.6 - 30.7) | 6.9 | 131 | 27.0 (23.8 - 30.2) | 27.6 (25.8 - 29.4) | 7.2 |
| 3-240 | 73 | 60.3 (50.4 - 70.2) | 46.8 (43.1 - 50.5) | 5.4 | 40 | 56.3 (46.0 - 66.6) | 41.5 (35.6 - 47.4) | 5.2 | 113 | 58.9 (51.6 - 66.2) | 44.9 (41.7 - 48.1) | 5.3 |
| 3-241 | 27 | 69.6 (55.5 - 83.7) | 66.9 (57.8 - 75.9) | 6.7 | 10 | 77.6 (46.5 - 108.7) | 39.5 (19.2 - 59.8) | 3.6 | 37 | 71.7 (58.6 - 84.8) | 59.5 (50.1 - 68.8) | 5.8 |
| Total episodes | 815 | | | | 649 | | | | 1,464 | | | |
| Non-Traumatic episodes | | | | | | | | | | | | |
| 3-202 | 17 | 121.1 (85.4 - 156.8) | 40.9 (27.0 - 54.9) | 2.4 | 31 | 68.5 (48.0 - 88.9) | 36.6 (24.3 - 48.9) | 3.7 | 48 | 87.1 (67.6 - 106.7) | 38.1 (28.8 - 47.5) | 3.1 |
| 3-210 | 51 | 12.7 (10.6 - 14.8) | 12.9 (10.6 - 15.1) | 7.1 | 219 | 13.3 (12.3 - 14.3) | 12.5 (11.4 - 13.6) | 6.6 | 270 | 13.2 (12.2 - 14.1) | 12.6 (11.6 - 13.5) | 6.7 |
| 3-211 | 125 | 15.7 (14.0 - 17.3) | 12.8 (11.2 - 14.5) | 5.7 | 298 | 16.5 (14.7 - 18.3) | 15.6 (14.5 - 16.8) | 6.6 | 423 | 16.3 (14.9 - 17.6) | 14.8 (13.9 - 15.7) | 6.4 |
| 3-212 | 28 | 22.6 (18.0 - 27.2) | 16.4 (12.0 - 20.9) | 5.1 | 71 | 19.7 (16.0 - 23.3) | 16.6 (14.2 - 19.0) | 5.9 | 99 | 20.5 (17.6 - 23.4) | 16.6 (14.4 - 18.7) | 5.7 |
| 3-213 | 50 | 45.2 (33.3 - 57.0) | 19.8 (15.9 - 23.7) | 3.1 | 92 | 23.6 (19.2 - 28.1) | 18.7 (16.2 - 21.1) | 5.5 | 142 | 31.2 (25.9 - 36.6) | 19.1 (17.0 - 21.2) | 4.3 |
| 3-214 | 78 | 41.6 (33.5 - 49.8) | 38.3 (33.7 - 43.0) | 6.4 | 383 | 28.5 (26.6 - 30.5) | 28.3 (26.5 - 30.2) | 7.0 | 461 | 30.7 (28.6 - 32.9) | 30.0 (28.3 - 31.8) | 6.8 |
| 3-215 | 28 | 70.0 (53.1 - 86.9) | 54.3 (41.3 - 67.2) | 5.4 | 86 | 50.0 (43.7 - 56.3) | 33.7 (28.2 - 39.2) | 4.7 | 114 | 54.9 (48.5 - 61.4) | 38.7 (33.3 - 44.2) | 4.9 |
| Total episodes | 377 | | | | 1,180 | | | | 1,557 | | | |

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

NOTE 2: Incomplete episodes are excluded from analysis

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 |