vap\_lca

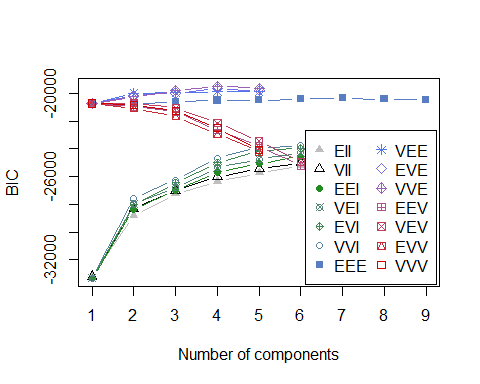
Ted Liu

2025-02-26

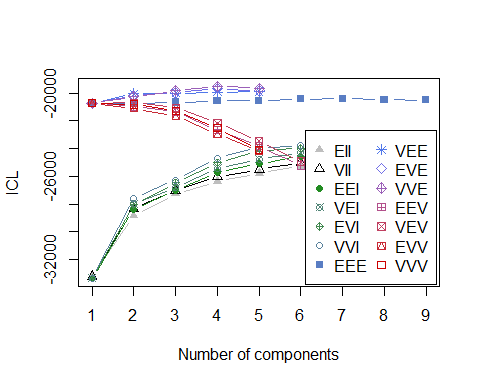
## Warning: Using an external vector in selections was deprecated in tidyselect 1.1.0.  
## ℹ Please use `all\_of()` or `any\_of()` instead.  
## # Was:  
## data %>% select(vap\_biomarkers)  
##   
## # Now:  
## data %>% select(all\_of(vap\_biomarkers))  
##   
## See <https://tidyselect.r-lib.org/reference/faq-external-vector.html>.  
## This warning is displayed once every 8 hours.  
## Call `lifecycle::last\_lifecycle\_warnings()` to see where this warning was  
## generated.

## Warning: 強制変換により NA が生成されました

# MClust Results



## Best BIC values:  
## VVE,4 VVE,5 EVE,4  
## BIC -19491.71 -19624.5197 -19641.9500  
## BIC diff 0.00 -132.8068 -150.2372



## Best ICL values:  
## VVE,4 VVE,5 EVE,4  
## ICL -19514.62 -19652.3173 -19662.1891  
## ICL diff 0.00 -137.6931 -147.5649

## png   
## 2

|  | 1 (N=123) | 2 (N=105) | 3 (N=74) | 4 (N=164) | Total (N=466) |
| --- | --- | --- | --- | --- | --- |
| Age |  |  |  |  |  |
| - Median | 53.079 | 48.260 | 50.270 | 52.141 | 51.522 |
| - Q1, Q3 | 37.780, 62.185 | 32.827, 64.345 | 35.920, 66.129 | 36.824, 63.572 | 35.900, 63.694 |
| Sex |  |  |  |  |  |
| - Female | 31 (25.2%) | 36 (34.3%) | 17 (23.0%) | 37 (22.6%) | 121 (26.0%) |
| - Male | 92 (74.8%) | 69 (65.7%) | 57 (77.0%) | 127 (77.4%) | 345 (74.0%) |
| BMI |  |  |  |  |  |
| - Median | 27.933 | 26.298 | 26.301 | 28.480 | 27.444 |
| - Q1, Q3 | 23.657, 32.737 | 22.974, 30.489 | 24.349, 29.758 | 24.794, 34.602 | 23.983, 32.406 |
| Race |  |  |  |  |  |
| - American Indian or Native Alaskan | 4 (3.3%) | 5 (4.8%) | 4 (5.4%) | 8 (4.9%) | 21 (4.5%) |
| - Another Race | 1 (0.8%) | 1 (1.0%) | 0 (0.0%) | 1 (0.6%) | 3 (0.6%) |
| - Asian | 11 (8.9%) | 7 (6.7%) | 3 (4.1%) | 13 (7.9%) | 34 (7.3%) |
| - Black or African American | 15 (12.2%) | 13 (12.4%) | 9 (12.2%) | 15 (9.1%) | 52 (11.2%) |
| - Declined to Answer | 3 (2.4%) | 0 (0.0%) | 0 (0.0%) | 1 (0.6%) | 4 (0.9%) |
| - Native Hawaiian or Pacific Islander | 4 (3.3%) | 1 (1.0%) | 0 (0.0%) | 3 (1.8%) | 8 (1.7%) |
| - Unavailable or Unknown | 3 (2.4%) | 4 (3.8%) | 3 (4.1%) | 3 (1.8%) | 13 (2.8%) |
| - White | 82 (66.7%) | 74 (70.5%) | 55 (74.3%) | 120 (73.2%) | 331 (71.0%) |
| icu\_admit\_type |  |  |  |  |  |
| - | 31 (25.2%) | 30 (28.6%) | 32 (43.2%) | 44 (26.8%) | 137 (29.4%) |
| - Medical | 29 (23.6%) | 24 (22.9%) | 4 (5.4%) | 21 (12.8%) | 78 (16.7%) |
| - Neuro | 23 (18.7%) | 20 (19.0%) | 10 (13.5%) | 31 (18.9%) | 84 (18.0%) |
| - Surgical | 40 (32.5%) | 31 (29.5%) | 28 (37.8%) | 68 (41.5%) | 167 (35.8%) |
| bronch\_day\_1 |  |  |  |  |  |
| - Median | 8.000 | 5.000 | 7.000 | 7.000 | 7.000 |
| - Q1, Q3 | 4.500, 16.000 | 3.000, 8.000 | 4.250, 10.000 | 4.000, 12.250 | 4.000, 12.000 |
| bronch\_day\_1\_indexed\_to\_intubation |  |  |  |  |  |
| - Median | 7.000 | 4.000 | 6.000 | 6.000 | 6.000 |
| - Q1, Q3 | 3.000, 15.000 | 2.000, 7.000 | 3.250, 9.000 | 3.000, 11.000 | 3.000, 10.750 |
| X28d\_mortality |  |  |  |  |  |
| - 0 | 106 (86.2%) | 87 (82.9%) | 59 (79.7%) | 145 (88.4%) | 397 (85.2%) |
| - 1 | 17 (13.8%) | 18 (17.1%) | 15 (20.3%) | 19 (11.6%) | 69 (14.8%) |
| colony\_1000\_yes1\_no0 |  |  |  |  |  |
| - 0 | 72 (58.5%) | 58 (55.2%) | 39 (52.7%) | 81 (49.4%) | 250 (53.6%) |
| - 1 | 51 (41.5%) | 47 (44.8%) | 35 (47.3%) | 83 (50.6%) | 216 (46.4%) |
| colony\_10000\_yes1\_no0 |  |  |  |  |  |
| - 0 | 96 (78.0%) | 82 (78.1%) | 57 (77.0%) | 115 (70.1%) | 350 (75.1%) |
| - 1 | 27 (22.0%) | 23 (21.9%) | 17 (23.0%) | 49 (29.9%) | 116 (24.9%) |
| perc\_neutrophils\_bal\_b1 |  |  |  |  |  |
| - Median | 19.000 | 84.000 | 95.000 | 81.000 | 84.000 |
| - Q1, Q3 | 8.750, 47.750 | 68.500, 89.000 | 90.250, 98.000 | 65.500, 89.000 | 58.000, 91.000 |
| bal\_nucleated\_cells\_b1 |  |  |  |  |  |
| - Median | 415.000 | 1474.000 | 4116.000 | 1180.000 | 1105.000 |
| - Q1, Q3 | 287.000, 659.000 | 580.000, 2313.000 | 1939.500, 13326.500 | 616.500, 2422.500 | 418.000, 2455.000 |
| hospital\_mortality |  |  |  |  |  |
| - 0 | 98 (79.7%) | 83 (79.0%) | 54 (73.0%) | 135 (82.3%) | 370 (79.4%) |
| - 1 | 25 (20.3%) | 22 (21.0%) | 20 (27.0%) | 29 (17.7%) | 96 (20.6%) |
| icu\_mortality |  |  |  |  |  |
| - 0 | 105 (85.4%) | 90 (85.7%) | 59 (79.7%) | 141 (86.0%) | 395 (84.8%) |
| - 1 | 18 (14.6%) | 15 (14.3%) | 15 (20.3%) | 23 (14.0%) | 71 (15.2%) |
| apache\_iii\_admit |  |  |  |  |  |
| - Median | 83.000 | 82.000 | 87.500 | 87.000 | 85.000 |
| - Q1, Q3 | 64.250, 105.000 | 64.000, 107.000 | 59.500, 111.250 | 60.500, 106.000 | 63.000, 106.000 |
| sofa\_icu |  |  |  |  |  |
| - Median | 6.000 | 7.000 | 5.000 | 6.000 | 6.000 |
| - Q1, Q3 | 4.000, 9.000 | 3.000, 9.000 | 2.250, 8.000 | 3.000, 9.000 | 3.000, 9.000 |
| sofa\_b1 |  |  |  |  |  |
| - Median | 5.000 | 7.000 | 6.000 | 6.000 | 6.000 |
| - Q1, Q3 | 4.000, 7.000 | 5.000, 9.000 | 4.000, 7.750 | 4.000, 8.000 | 4.000, 8.000 |
| bronch\_ecmo\_0 |  |  |  |  |  |
| - N-Miss | 119 | 104 | 73 | 160 | 456 |
| - 1 | 4 (100.0%) | 1 (100.0%) | 1 (100.0%) | 4 (100.0%) | 10 (100.0%) |
| bronch\_pf\_8am\_calculated\_0 |  |  |  |  |  |
| - Median | 220.000 | 176.000 | 174.250 | 185.000 | 185.000 |
| - Q1, Q3 | 162.000, 258.125 | 123.667, 219.167 | 127.143, 280.625 | 143.000, 252.857 | 139.500, 252.411 |
| bronch\_sf\_8am\_calculated\_0 |  |  |  |  |  |
| - Median | 313.333 | 237.500 | 237.500 | 267.143 | 247.500 |
| - Q1, Q3 | 240.000, 333.333 | 174.000, 313.333 | 190.000, 317.500 | 194.500, 332.500 | 194.000, 326.667 |
| bronch\_oi\_8am\_calculated\_0 |  |  |  |  |  |
| - Median | 5.867 | 7.222 | 7.206 | 6.164 | 6.269 |
| - Q1, Q3 | 3.950, 7.706 | 4.652, 11.493 | 4.200, 10.397 | 4.867, 9.282 | 4.439, 9.635 |
| vfds\_admit |  |  |  |  |  |
| - Median | 7.000 | 10.000 | 3.000 | 11.000 | 8.000 |
| - Q1, Q3 | 0.000, 15.000 | 0.000, 17.000 | 0.000, 13.000 | 0.000, 18.000 | 0.000, 16.000 |
| vfds\_bronch |  |  |  |  |  |
| - Median | 14.000 | 13.000 | 9.000 | 16.000 | 14.000 |
| - Q1, Q3 | 0.000, 21.000 | 0.000, 22.000 | 0.000, 19.000 | 0.000, 22.000 | 0.000, 21.000 |
| vfds\_first\_intubtation |  |  |  |  |  |
| - Median | 6.000 | 10.000 | 3.000 | 10.000 | 8.000 |
| - Q1, Q3 | 0.000, 15.000 | 0.000, 17.000 | 0.000, 13.000 | 0.000, 17.000 | 0.000, 16.000 |
| mapped\_organism |  |  |  |  |  |
| - cineto1 | 2 (1.6%) | 0 (0.0%) | 0 (0.0%) | 3 (1.8%) | 5 (1.1%) |
| - bahstrep2 | 1 (0.8%) | 3 (2.9%) | 1 (1.4%) | 1 (0.6%) | 6 (1.3%) |
| - candida3 | 0 (0.0%) | 1 (1.0%) | 2 (2.7%) | 2 (1.2%) | 5 (1.1%) |
| - citrobacter4 | 0 (0.0%) | 1 (1.0%) | 1 (1.4%) | 0 (0.0%) | 2 (0.4%) |
| - oralflora5 | 6 (4.9%) | 3 (2.9%) | 6 (8.1%) | 5 (3.0%) | 20 (4.3%) |
| - coryneanddipther6 | 1 (0.8%) | 0 (0.0%) | 2 (2.7%) | 1 (0.6%) | 4 (0.9%) |
| - enterbacter7 | 3 (2.4%) | 0 (0.0%) | 2 (2.7%) | 1 (0.6%) | 6 (1.3%) |
| - ecoli8 | 0 (0.0%) | 1 (1.0%) | 0 (0.0%) | 2 (1.2%) | 3 (0.6%) |
| - hinflu9 | 6 (4.9%) | 3 (2.9%) | 0 (0.0%) | 2 (1.2%) | 11 (2.4%) |
| - klebs10 | 3 (2.4%) | 5 (4.8%) | 3 (4.1%) | 7 (4.3%) | 18 (3.9%) |
| - neisseria11 | 2 (1.6%) | 3 (2.9%) | 1 (1.4%) | 4 (2.4%) | 10 (2.1%) |
| - pseudomonas12 | 7 (5.7%) | 1 (1.0%) | 0 (0.0%) | 3 (1.8%) | 11 (2.4%) |
| - serratia13 | 2 (1.6%) | 2 (1.9%) | 0 (0.0%) | 3 (1.8%) | 7 (1.5%) |
| - staph14 | 25 (20.3%) | 23 (21.9%) | 14 (18.9%) | 41 (25.0%) | 103 (22.1%) |
| - spneumo15 | 2 (1.6%) | 0 (0.0%) | 2 (2.7%) | 3 (1.8%) | 7 (1.5%) |
| - yeast16 | 3 (2.4%) | 5 (4.8%) | 2 (2.7%) | 3 (1.8%) | 13 (2.8%) |
| - multiple17 | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) | 0 (0.0%) |
| - other18 | 8 (6.5%) | 7 (6.7%) | 5 (6.8%) | 20 (12.2%) | 40 (8.6%) |
| - nothing19 | 52 (42.3%) | 47 (44.8%) | 33 (44.6%) | 63 (38.4%) | 195 (41.8%) |

## Saving 5 x 4 in image

## Saving 5 x 4 in image