Addison’s disease associated with advanced HIV may explain the high mortality

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# Table 1

| Variable | N | Overall, N = 4291 | Females, N = 2181 | Males, N = 2111 | p-value2 |
| --- | --- | --- | --- | --- | --- |
| **Age at enrolment** | 429 | 36 (31, 42) | 35 (31, 41) | 37 (32, 43) | 0.058 |
| **Ethnicity** | 427 |  |  |  | 0.069 |
| Asian |  | 1 (0.2%) | 0 (0.0%) | 1 (0.5%) |  |
| Black African |  | 356 (83.4%) | 176 (81.1%) | 180 (85.7%) |  |
| Coloured |  | 68 (15.9%) | 41 (18.9%) | 27 (12.9%) |  |
| White |  | 2 (0.5%) | 0 (0.0%) | 2 (1.0%) |  |
| **Duration of current illness** | 399 | 14 (14, 21) | 14 (14, 30) | 14 (14, 21) | 0.3 |
| **Opportunistic infection present** | 426 | 423 (99.3%) | 214 (98.6%) | 209 (100.0%) | 0.2 |
| **log10 viral load** | 96 | 4.47 (3.13, 5.34) | 4.07 (3.22, 5.24) | 4.61 (3.04, 5.37) | >0.9 |
| **Total CD4 count** | 427 | 31 (14, 60) | 32 (15, 58) | 30 (12, 64) | >0.9 |
| **Sodium** | 407 | 134.0 (130.0, 137.0) | 135.0 (131.0, 138.0) | 133.0 (129.0, 136.5) | 0.001 |
| **Potassium** | 408 | 4.05 (3.60, 4.60) | 3.90 (3.50, 4.40) | 4.20 (3.80, 4.70) | <0.001 |
| **Haemoglobin** | 425 | 8.70 (7.40, 10.30) | 8.30 (7.10, 9.50) | 9.30 (7.90, 10.90) | <0.001 |
| **White cell count** | 422 | 5.4 (3.6, 8.0) | 5.6 (3.7, 8.1) | 5.3 (3.5, 7.8) | 0.6 |
| **Lymphocyte count** | 92 | 0.8 (0.4, 1.8) | 0.9 (0.3, 3.5) | 0.8 (0.4, 1.3) | >0.9 |
| **Neutrophils** | 92 | 3 (1, 8) | 3 (1, 10) | 3 (1, 7) | 0.6 |
| **Addisons disease** | 318 | 30 (9.4%) | 16 (9.6%) | 14 (9.3%) | >0.9 |
| **Tuberculosis** | 429 |  |  |  | 0.7 |
| Checked |  | 313 (73.0%) | 161 (73.9%) | 152 (72.0%) |  |
| Unchecked |  | 116 (27.0%) | 57 (26.1%) | 59 (28.0%) |  |
| **Cryptococcus neoformans** | 429 |  |  |  | >0.9 |
| Checked |  | 1 (0.2%) | 1 (0.5%) | 0 (0.0%) |  |
| Unchecked |  | 428 (99.8%) | 217 (99.5%) | 211 (100.0%) |  |
| **Toxoplasmosis** | 429 |  |  |  |  |
| Unchecked |  | 429 (100.0%) | 218 (100.0%) | 211 (100.0%) |  |
| **Mycobacterium avium-intracellulare** | 429 |  |  |  |  |
| Unchecked |  | 429 (100.0%) | 218 (100.0%) | 211 (100.0%) |  |
| **Kaposis sarcoma** | 429 |  |  |  | 0.5 |
| Checked |  | 1 (0.2%) | 0 (0.0%) | 1 (0.5%) |  |
| Unchecked |  | 428 (99.8%) | 218 (100.0%) | 210 (99.5%) |  |
| **Cytomegalovirus** | 429 |  |  |  | 0.5 |
| Checked |  | 1 (0.2%) | 0 (0.0%) | 1 (0.5%) |  |
| Unchecked |  | 428 (99.8%) | 218 (100.0%) | 210 (99.5%) |  |
| **Other** | 429 |  |  |  | 0.5 |
| Checked |  | 113 (26.3%) | 54 (24.8%) | 59 (28.0%) |  |
| Unchecked |  | 316 (73.7%) | 164 (75.2%) | 152 (72.0%) |  |
| 1Median (IQR); n (%) | | | | | |
| 2Wilcoxon rank sum test; Fisher's exact test; Pearson's Chi-squared test | | | | | |

# Table 2: comparing Addisons status with other variables

| Variable | N | yes, N = 301 | no, N = 2881 | p-value2 |
| --- | --- | --- | --- | --- |
| **Age at enrolment, median (IQR) (years)** | 318 | 36 (31, 43) | 36 (31, 42) | 0.9 |
| **Gender, n(%)** | 318 |  |  | >0.9 |
| Females |  | 16 (53.3%) | 151 (52.4%) |  |
| Males |  | 14 (46.7%) | 137 (47.6%) |  |
| **Ethnicity, n(%)** | 317 |  |  | 0.5 |
| Black African |  | 26 (86.7%) | 235 (81.9%) |  |
| Other |  | 4 (13.3%) | 52 (18.1%) |  |
| **Duration of current illness, median (IQR) (days)** | 300 | 14 (14, 21) | 14 (14, 30) | 0.4 |
| **Random cortisol** | 318 | 317 (241, 372) | 518 (396, 609) | <0.001 |
| **Basal cortisol** | 144 | 300 (185, 368) | 473 (374, 580) | <0.001 |
| **Stimulated cortisol** | 145 | 434 (356, 515) | 727 (642, 859) | <0.001 |
| **ACTH** | 318 | 36 (25, 70) | 31 (18, 48) | 0.015 |
| **BP (systolic)** | 318 | 120 (109, 128) | 110 (100, 125) | 0.13 |
| **BP (diastolic)** | 318 | 70 (63, 80) | 70 (60, 78) | 0.093 |
| **Heart rate** | 318 | 88 (78, 108) | 95 (82, 111) | 0.4 |
| **Hypotension** | 305 | 1 (3.3%) | 22 (8.0%) | 0.7 |
| **Weakness** | 306 | 22 (73.3%) | 246 (89.1%) | 0.020 |
| **Tiredness** | 307 | 24 (80.0%) | 255 (92.1%) | 0.042 |
| **Poor appetite** | 304 | 24 (80.0%) | 220 (80.3%) | >0.9 |
| **Weight loss** | 308 | 25 (83.3%) | 257 (92.4%) | 0.2 |
| **Increased pigmentation of the skin** | 292 | 10 (38.5%) | 129 (48.5%) | 0.3 |
| **Nausea** | 307 | 16 (53.3%) | 147 (53.1%) | >0.9 |
| **Vomiting** | 306 | 10 (33.3%) | 78 (28.3%) | 0.6 |
| **Liking for salt** | 305 | 18 (62.1%) | 189 (68.5%) | 0.5 |
| **Hypoglycaemia** | 306 | 0 (0.0%) | 7 (2.5%) | >0.9 |
| **Loss of consciousness** | 304 | 0 (0.0%) | 2 (0.7%) | >0.9 |
| **Diarrhoea** | 304 | 10 (33.3%) | 117 (42.7%) | 0.3 |
| **Dizziness** | 305 | 15 (51.7%) | 129 (46.7%) | 0.6 |
| **Shock** | 308 | 0 (0.0%) | 3 (1.1%) | >0.9 |
| **Anorexia** | 306 | 8 (26.7%) | 125 (45.3%) | 0.051 |
| **Loss of axillary and pubic hair, if female** | 309 |  |  | 0.2 |
| No |  | 14 (46.7%) | 97 (34.8%) |  |
| Not applicable |  | 14 (46.7%) | 131 (47.0%) |  |
| Yes |  | 2 (6.7%) | 51 (18.3%) |  |
| **Any postural drop in blood pressure** | 306 | 1 (3.3%) | 11 (4.0%) | >0.9 |
| **Presence of anaemia** | 303 | 16 (53.3%) | 151 (55.3%) | 0.8 |
| **Presence of an opportunistic infection** | 317 |  |  |  |
| Yes |  | 30 (100.0%) | 287 (100.0%) |  |
| **Viral load (log10 Copies/mL)** | 65 | 5.04 (4.79, 5.17) | 4.71 (3.27, 5.37) | 0.6 |
| **Total CD4 count** | 317 | 26 (12, 56) | 31 (14, 56) | 0.6 |
| **Sodium mmol/L** | 303 | 135.0 (131.0, 137.0) | 133.0 (130.0, 137.0) | 0.10 |
| **Potassium mmol/L** | 304 | 3.90 (3.30, 4.60) | 4.10 (3.65, 4.60) | 0.4 |
| **Haemoglobin g/dL** | 317 | 8.30 (7.62, 10.37) | 8.80 (7.40, 10.40) | >0.9 |
| **White cell count X109** | 316 | 5.1 (2.9, 8.2) | 5.7 (3.9, 8.2) | 0.5 |
| **Lymphocyte count X109** | 62 | 0.9 (0.6, 1.3) | 0.7 (0.4, 1.6) | 0.3 |
| **Neutrophils** | 61 | 7 (1, 15) | 3 (1, 7) | 0.7 |
| 1Median (IQR); n (%) | | | | |
| 2Wilcoxon rank sum test; Pearson's Chi-squared test; Fisher's exact test | | | | |

# Table 3: Bivariate table

| Characteristic | N | HR1 | 95% CI1 | p-value |
| --- | --- | --- | --- | --- |
| Age\_at\_enrolment | 430 | 1.02 | 0.99, 1.05 | 0.2 |
| gender | 429 | 0.78 | 0.45, 1.34 | 0.4 |
| Ethnicity | 428 | 0.89 | 0.42, 1.88 | 0.8 |
| Duration\_of\_current\_illness | 400 | 1.00 | 0.99, 1.01 | 0.6 |
| Log10\_viralload | 97 | 1.57 | 1.00, 2.47 | 0.049 |
| Total\_CD4\_count | 428 | 0.99 | 0.98, 1.00 | 0.2 |
| Sodium | 408 | 0.99 | 0.95, 1.04 | 0.7 |
| Potassium | 409 | 0.85 | 0.63, 1.15 | 0.3 |
| Haemoglobin | 426 | 1.00 | 0.97, 1.02 | 0.8 |
| White\_cell\_count | 423 | 1.00 | 1.00, 1.00 | 0.8 |
| Lymphocyte\_count | 93 | 0.86 | 0.68, 1.09 | 0.2 |
| Neutrophils | 93 | 0.99 | 0.96, 1.02 | 0.5 |
| Addisons\_disease | 318 | 1.18 | 0.47, 2.97 | 0.7 |
| 1HR = Hazard Ratio, CI = Confidence Interval | | | | |

# Table 4: Multivariate table

The rule of thumb for MV models such as this on you need at least 10 people per outcome. We have 53 people with the outcome, yet we have 6 variables adjusted for in the model (using stepwise regression). I suggest we remove one variable from the list that you think may not be biologically contributing in the relationship. (see accompanying file)

iter imp variable 1 1 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 1 2 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 1 3 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 1 4 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 1 5 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count 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Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 17 5 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 18 1 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 18 2 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 18 3 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 18 4 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 18 5 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 19 1 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 19 2 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 19 3 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 19 4 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 19 5 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 20 1 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 20 2 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 20 3 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 20 4 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease 20 5 Age\_at\_enrolment gender Ethnicity Duration\_of\_current\_illness Log10\_viralload Total\_CD4\_count Sodium Potassium Haemoglobin White\_cell\_count Lymphocyte\_count Neutrophils Addisons\_disease Start: AIC=636.34 Surv(ttdeath, mortality) ~ 1

Df AIC

* Log10\_viralload 1 610.40
* Neutrophils 1 632.89
* Potassium 1 635.04 636.34
* Age\_at\_enrolment 1 636.50
* Lymphocyte\_count 1 636.56
* Total\_CD4\_count 1 636.60
* gender 1 637.52
* Sodium 1 637.57
* Duration\_of\_current\_illness 1 637.73
* Haemoglobin 1 638.15
* Ethnicity 1 638.22
* White\_cell\_count 1 638.32
* Addisons\_disease 1 638.34

Step: AIC=610.4 Surv(ttdeath, mortality) ~ Log10\_viralload

Df AIC

* Neutrophils 1 605.08
* Lymphocyte\_count 1 608.35
* Potassium 1 610.08 610.40
* Age\_at\_enrolment 1 610.55
* Addisons\_disease 1 611.42
* Sodium 1 611.58
* Ethnicity 1 611.78
* gender 1 611.80
* White\_cell\_count 1 612.11
* Total\_CD4\_count 1 612.18
* Duration\_of\_current\_illness 1 612.28
* Haemoglobin 1 612.40
* Log10\_viralload 1 636.34

Step: AIC=605.08 Surv(ttdeath, mortality) ~ Log10\_viralload + Neutrophils

Df AIC

* Ethnicity 1 603.21
* Lymphocyte\_count 1 603.28
* Age\_at\_enrolment 1 604.47
* Potassium 1 604.71 605.08
* Sodium 1 606.19
* Addisons\_disease 1 606.36
* gender 1 606.72
* White\_cell\_count 1 606.83
* Haemoglobin 1 606.94
* Total\_CD4\_count 1 607.05
* Duration\_of\_current\_illness 1 607.05
* Neutrophils 1 610.40
* Log10\_viralload 1 632.89

Step: AIC=603.21 Surv(ttdeath, mortality) ~ Log10\_viralload + Neutrophils + Ethnicity

Df AIC

* Lymphocyte\_count 1 600.03
* Age\_at\_enrolment 1 602.32
* Potassium 1 602.40 603.21
* Addisons\_disease 1 603.86
* Sodium 1 604.39
* gender 1 604.48
* Haemoglobin 1 604.86
* White\_cell\_count 1 604.97
* Ethnicity 1 605.08
* Total\_CD4\_count 1 605.20
* Duration\_of\_current\_illness 1 605.20
* Neutrophils 1 611.78
* Log10\_viralload 1 632.94

Step: AIC=600.03 Surv(ttdeath, mortality) ~ Log10\_viralload + Neutrophils + Ethnicity + Lymphocyte\_count

Df AIC

* Potassium 1 598.55 600.03
* Age\_at\_enrolment 1 600.04
* gender 1 600.09
* Haemoglobin 1 601.65
* White\_cell\_count 1 601.69
* Sodium 1 601.93
* Addisons\_disease 1 601.94
* Total\_CD4\_count 1 602.00
* Duration\_of\_current\_illness 1 602.01
* Lymphocyte\_count 1 603.21
* Ethnicity 1 603.28
* Neutrophils 1 609.00
* Log10\_viralload 1 633.06

Step: AIC=598.55 Surv(ttdeath, mortality) ~ Log10\_viralload + Neutrophils + Ethnicity + Lymphocyte\_count + Potassium

Df AIC

598.55 + Age\_at\_enrolment 1 598.68 + gender 1 599.47 - Potassium 1 600.03 + Haemoglobin 1 600.18 + White\_cell\_count 1 600.26 + Sodium 1 600.38 + Total\_CD4\_count 1 600.43 + Duration\_of\_current\_illness 1 600.52 + Addisons\_disease 1 600.55 - Lymphocyte\_count 1 602.40 - Ethnicity 1 602.69 - Neutrophils 1 608.05 - Log10\_viralload 1 631.09 Start: AIC=636.34 Surv(ttdeath, mortality) ~ 1

Df AIC

* Log10\_viralload 1 622.12
* Neutrophils 1 626.47
* Lymphocyte\_count 1 634.00
* Potassium 1 634.97 636.34
* Age\_at\_enrolment 1 636.53
* Total\_CD4\_count 1 636.71
* gender 1 637.45
* Duration\_of\_current\_illness 1 637.98
* Sodium 1 638.07
* Haemoglobin 1 638.15
* Ethnicity 1 638.22
* White\_cell\_count 1 638.29
* Addisons\_disease 1 638.32

Step: AIC=622.12 Surv(ttdeath, mortality) ~ Log10\_viralload

Df AIC

* Neutrophils 1 608.48
* Lymphocyte\_count 1 614.25
* Potassium 1 620.22 622.12
* Age\_at\_enrolment 1 622.50
* Addisons\_disease 1 622.78
* gender 1 623.61
* Ethnicity 1 623.91
* Duration\_of\_current\_illness 1 623.99
* Sodium 1 624.06
* White\_cell\_count 1 624.10
* Haemoglobin 1 624.11
* Total\_CD4\_count 1 624.11
* Log10\_viralload 1 636.34

Step: AIC=608.48 Surv(ttdeath, mortality) ~ Log10\_viralload + Neutrophils

Df AIC

* Lymphocyte\_count 1 601.62
* Potassium 1 608.16 608.48
* gender 1 609.12
* Addisons\_disease 1 609.26
* Age\_at\_enrolment 1 610.04
* White\_cell\_count 1 610.25
* Duration\_of\_current\_illness 1 610.31
* Sodium 1 610.45
* Haemoglobin 1 610.46
* Ethnicity 1 610.46
* Total\_CD4\_count 1 610.47
* Neutrophils 1 622.12
* Log10\_viralload 1 626.47

Step: AIC=601.62 Surv(ttdeath, mortality) ~ Log10\_viralload + Neutrophils + Lymphocyte\_count

Df AIC

* Potassium 1 600.66
* gender 1 600.99 601.62
* Addisons\_disease 1 602.48
* Total\_CD4\_count 1 603.14
* Sodium 1 603.22
* White\_cell\_count 1 603.37
* Age\_at\_enrolment 1 603.51
* Haemoglobin 1 603.56
* Ethnicity 1 603.57
* Duration\_of\_current\_illness 1 603.61
* Lymphocyte\_count 1 608.48
* Neutrophils 1 614.25
* Log10\_viralload 1 625.34

Step: AIC=600.66 Surv(ttdeath, mortality) ~ Log10\_viralload + Neutrophils + Lymphocyte\_count + Potassium

Df AIC

600.66 + gender 1 600.76 + Addisons\_disease 1 601.08 - Potassium 1 601.62 + Total\_CD4\_count 1 601.80 + Sodium 1 602.28 + White\_cell\_count 1 602.48 + Age\_at\_enrolment 1 602.54 + Haemoglobin 1 602.57 + Ethnicity 1 602.58 + Duration\_of\_current\_illness 1 602.63 - Lymphocyte\_count 1 608.16 - Neutrophils 1 611.40 - Log10\_viralload 1 625.45 Start: AIC=636.34 Surv(ttdeath, mortality) ~ 1

Df AIC

* Log10\_viralload 1 619.37
* Lymphocyte\_count 1 628.32
* Neutrophils 1 634.83
* Potassium 1 635.36 636.34
* Age\_at\_enrolment 1 636.40
* Total\_CD4\_count 1 636.65
* gender 1 637.52
* Duration\_of\_current\_illness 1 637.65
* Sodium 1 638.04
* Haemoglobin 1 638.14
* Ethnicity 1 638.22
* White\_cell\_count 1 638.32
* Addisons\_disease 1 638.32

Step: AIC=619.37 Surv(ttdeath, mortality) ~ Log10\_viralload

Df AIC

* Lymphocyte\_count 1 602.66
* Potassium 1 617.29
* Neutrophils 1 617.65 619.37
* Age\_at\_enrolment 1 619.85
* gender 1 620.50
* Ethnicity 1 620.81
* Duration\_of\_current\_illness 1 621.02
* Sodium 1 621.05
* White\_cell\_count 1 621.22
* Total\_CD4\_count 1 621.33
* Addisons\_disease 1 621.33
* Haemoglobin 1 621.37
* Log10\_viralload 1 636.34

Step: AIC=602.66 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count

Df AIC

* Potassium 1 601.63
* Total\_CD4\_count 1 602.52 602.66
* Neutrophils 1 602.83
* gender 1 602.97
* Ethnicity 1 603.28
* Age\_at\_enrolment 1 603.94
* Duration\_of\_current\_illness 1 604.21
* White\_cell\_count 1 604.53
* Addisons\_disease 1 604.56
* Sodium 1 604.57
* Haemoglobin 1 604.65
* Lymphocyte\_count 1 619.37
* Log10\_viralload 1 628.32

Step: AIC=601.63 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium

Df AIC

* Total\_CD4\_count 1 601.16 601.63
* Ethnicity 1 602.08
* Neutrophils 1 602.41
* gender 1 602.48
* Potassium 1 602.66
* Age\_at\_enrolment 1 602.92
* Duration\_of\_current\_illness 1 603.25
* White\_cell\_count 1 603.43
* Addisons\_disease 1 603.44
* Sodium 1 603.56
* Haemoglobin 1 603.62
* Lymphocyte\_count 1 617.29
* Log10\_viralload 1 627.70

Step: AIC=601.16 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium + Total\_CD4\_count

Df AIC

* Ethnicity 1 600.57
* Neutrophils 1 600.87 601.16
* Total\_CD4\_count 1 601.63
* gender 1 602.12
* Potassium 1 602.52
* White\_cell\_count 1 602.53
* Duration\_of\_current\_illness 1 602.67
* Addisons\_disease 1 602.71
* Age\_at\_enrolment 1 603.02
* Sodium 1 603.02
* Haemoglobin 1 603.16
* Lymphocyte\_count 1 618.98
* Log10\_viralload 1 628.98

Step: AIC=600.57 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium + Total\_CD4\_count + Ethnicity

Df AIC

600.57 - Ethnicity 1 601.16 + gender 1 601.30 + Neutrophils 1 601.47 + White\_cell\_count 1 601.98 - Total\_CD4\_count 1 602.08 + Duration\_of\_current\_illness 1 602.17 + Addisons\_disease 1 602.23 - Potassium 1 602.26 + Age\_at\_enrolment 1 602.36 + Sodium 1 602.43 + Haemoglobin 1 602.57 - Lymphocyte\_count 1 620.14 - Log10\_viralload 1 630.80 Start: AIC=636.34 Surv(ttdeath, mortality) ~ 1

Df AIC

* Log10\_viralload 1 616.07
* Neutrophils 1 634.89
* Potassium 1 635.56 636.34
* Age\_at\_enrolment 1 636.40
* Total\_CD4\_count 1 636.80
* Lymphocyte\_count 1 637.14
* Duration\_of\_current\_illness 1 637.42
* gender 1 637.45
* Sodium 1 637.71
* Haemoglobin 1 638.14
* Ethnicity 1 638.22
* Addisons\_disease 1 638.23
* White\_cell\_count 1 638.29

Step: AIC=616.07 Surv(ttdeath, mortality) ~ Log10\_viralload

Df AIC

* Lymphocyte\_count 1 614.75
* Potassium 1 614.92
* Neutrophils 1 615.88 616.07
* Ethnicity 1 616.64
* gender 1 616.75
* Duration\_of\_current\_illness 1 617.39
* Age\_at\_enrolment 1 617.80
* Addisons\_disease 1 617.94
* White\_cell\_count 1 618.00
* Total\_CD4\_count 1 618.03
* Haemoglobin 1 618.05
* Sodium 1 618.07
* Log10\_viralload 1 636.34

Step: AIC=614.75 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count

Df AIC

* Potassium 1 613.26
* Ethnicity 1 614.37
* gender 1 614.58 614.75
* Neutrophils 1 615.44
* Duration\_of\_current\_illness 1 615.80
* Lymphocyte\_count 1 616.07
* Sodium 1 616.25
* Addisons\_disease 1 616.50
* White\_cell\_count 1 616.69
* Total\_CD4\_count 1 616.73
* Haemoglobin 1 616.73
* Age\_at\_enrolment 1 616.75
* Log10\_viralload 1 637.14

Step: AIC=613.26 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium

Df AIC

* Ethnicity 1 612.40 613.26
* gender 1 613.73
* Duration\_of\_current\_illness 1 614.26
* Addisons\_disease 1 614.26
* Neutrophils 1 614.57
* Sodium 1 614.70
* Potassium 1 614.75
* Lymphocyte\_count 1 614.92
* White\_cell\_count 1 615.22
* Haemoglobin 1 615.24
* Total\_CD4\_count 1 615.25
* Age\_at\_enrolment 1 615.25
* Log10\_viralload 1 636.19

Step: AIC=612.4 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium + Ethnicity

Df AIC

* gender 1 612.29 612.40
* Ethnicity 1 613.26
* Addisons\_disease 1 613.36
* Duration\_of\_current\_illness 1 613.43
* Sodium 1 613.48
* Neutrophils 1 614.11
* Total\_CD4\_count 1 614.30
* White\_cell\_count 1 614.32
* Potassium 1 614.37
* Haemoglobin 1 614.38
* Age\_at\_enrolment 1 614.39
* Lymphocyte\_count 1 615.31
* Log10\_viralload 1 637.99

Step: AIC=612.29 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium + Ethnicity + gender

Df AIC

612.29 - gender 1 612.40 + Duration\_of\_current\_illness 1 613.21 + Addisons\_disease 1 613.23 - Potassium 1 613.42 + Sodium 1 613.53 - Ethnicity 1 613.73 + Neutrophils 1 614.06 + Total\_CD4\_count 1 614.14 + White\_cell\_count 1 614.23 + Haemoglobin 1 614.26 + Age\_at\_enrolment 1 614.29 - Lymphocyte\_count 1 616.37 - Log10\_viralload 1 639.08 Start: AIC=636.34 Surv(ttdeath, mortality) ~ 1

Df AIC

* Log10\_viralload 1 612.66
* Lymphocyte\_count 1 630.06
* Potassium 1 635.75 636.34
* Age\_at\_enrolment 1 636.51
* Total\_CD4\_count 1 636.79
* gender 1 637.58
* Sodium 1 637.79
* Haemoglobin 1 638.14
* Ethnicity 1 638.22
* White\_cell\_count 1 638.29
* Neutrophils 1 638.30
* Duration\_of\_current\_illness 1 638.33
* Addisons\_disease 1 638.33

Step: AIC=612.66 Surv(ttdeath, mortality) ~ Log10\_viralload

Df AIC

* Lymphocyte\_count 1 590.50
* Potassium 1 612.29 612.66
* Ethnicity 1 613.41
* Sodium 1 613.80
* Age\_at\_enrolment 1 613.87
* Neutrophils 1 614.10
* Duration\_of\_current\_illness 1 614.38
* Addisons\_disease 1 614.40
* gender 1 614.60
* White\_cell\_count 1 614.60
* Haemoglobin 1 614.62
* Total\_CD4\_count 1 614.66
* Log10\_viralload 1 636.34

Step: AIC=590.5 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count

Df AIC

* Potassium 1 587.84
* Ethnicity 1 590.19
* gender 1 590.48 590.50
* Total\_CD4\_count 1 590.80
* Sodium 1 591.36
* Addisons\_disease 1 591.57
* Neutrophils 1 591.72
* Duration\_of\_current\_illness 1 592.45
* Haemoglobin 1 592.49
* Age\_at\_enrolment 1 592.50
* White\_cell\_count 1 592.50
* Lymphocyte\_count 1 612.66
* Log10\_viralload 1 630.06

Step: AIC=587.84 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium

Df AIC

* Ethnicity 1 587.22
* Total\_CD4\_count 1 587.23 587.84
* gender 1 588.10
* Sodium 1 588.65
* Neutrophils 1 589.02
* Addisons\_disease 1 589.13
* Haemoglobin 1 589.83
* Age\_at\_enrolment 1 589.83
* White\_cell\_count 1 589.83
* Duration\_of\_current\_illness 1 589.84
* Potassium 1 590.50
* Lymphocyte\_count 1 612.29
* Log10\_viralload 1 628.56

Step: AIC=587.22 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium + Ethnicity

Df AIC

* Total\_CD4\_count 1 585.75
* gender 1 586.66 587.22
* Ethnicity 1 587.84
* Sodium 1 587.92
* Addisons\_disease 1 588.27
* Neutrophils 1 588.46
* Duration\_of\_current\_illness 1 589.17
* Haemoglobin 1 589.20
* White\_cell\_count 1 589.22
* Age\_at\_enrolment 1 589.22
* Potassium 1 590.19
* Lymphocyte\_count 1 613.00
* Log10\_viralload 1 630.41

Step: AIC=585.75 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium + Ethnicity + Total\_CD4\_count

Df AIC

* gender 1 585.05 585.75
* Sodium 1 586.19
* Addisons\_disease 1 586.62
* Total\_CD4\_count 1 587.22
* Neutrophils 1 587.23
* Ethnicity 1 587.23
* Age\_at\_enrolment 1 587.46
* Duration\_of\_current\_illness 1 587.67
* Haemoglobin 1 587.70
* White\_cell\_count 1 587.71
* Potassium 1 589.99
* Lymphocyte\_count 1 614.95
* Log10\_viralload 1 631.56

Step: AIC=585.05 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium + Ethnicity + Total\_CD4\_count + gender

Df AIC

* Sodium 1 584.82 585.05
* gender 1 585.75
* Addisons\_disease 1 586.11
* Neutrophils 1 586.51
* Total\_CD4\_count 1 586.66
* Age\_at\_enrolment 1 586.87
* Duration\_of\_current\_illness 1 586.92
* Haemoglobin 1 586.99
* White\_cell\_count 1 586.99
* Ethnicity 1 587.40
* Potassium 1 589.00
* Lymphocyte\_count 1 616.90
* Log10\_viralload 1 631.84

Step: AIC=584.82 Surv(ttdeath, mortality) ~ Log10\_viralload + Lymphocyte\_count + Potassium + Ethnicity + Total\_CD4\_count + gender + Sodium

Df AIC

584.82 - Sodium 1 585.05 + Addisons\_disease 1 586.02 - gender 1 586.19 + Neutrophils 1 586.48 + Age\_at\_enrolment 1 586.50 + Duration\_of\_current\_illness 1 586.74 + Haemoglobin 1 586.74 - Total\_CD4\_count 1 586.77 + White\_cell\_count 1 586.80 - Ethnicity 1 587.45 - Potassium 1 588.91 - Lymphocyte\_count 1 617.92 - Log10\_viralload 1 633.13 votes Ethnicity gender Log10\_viralload Lymphocyte\_count 4 2 5 5 Neutrophils Potassium Sodium Total\_CD4\_count 2 5 1 2