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-value**2 |
| --- | --- | --- | --- | --- | --- |
| **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** | 146 | 31 (21.2%) | 16 (19.8%) | 15 (23.1%) | 0.6 |
| **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 1.2

| Variable | **N** | **Overall**, N = 4281 | **0 - 30**, N = 2101 | **31 - 60**, N = 1131 | **61 - 100**, N = 1051 | **p-value**2 |
| --- | --- | --- | --- | --- | --- | --- |
| **Age at enrolment** | 428 | 36 (31, 42) | 34 (30, 41) | 37 (32, 43) | 37 (32, 46) | 0.012 |
| **gender** | 427 |  |  |  |  | 0.3 |
| Females |  | 217 (50.8%) | 104 (49.8%) | 64 (56.6%) | 49 (46.7%) |  |
| Males |  | 210 (49.2%) | 105 (50.2%) | 49 (43.4%) | 56 (53.3%) |  |
| **Ethnicity** | 426 |  |  |  |  | 0.2 |
| Asian |  | 1 (0.2%) | 1 (0.5%) | 0 (0.0%) | 0 (0.0%) |  |
| Black African |  | 355 (83.3%) | 180 (86.1%) | 95 (84.1%) | 80 (76.9%) |  |
| Coloured |  | 68 (16.0%) | 27 (12.9%) | 17 (15.0%) | 24 (23.1%) |  |
| White |  | 2 (0.5%) | 1 (0.5%) | 1 (0.9%) | 0 (0.0%) |  |
| **Duration of current illness** | 400 | 14 (14, 21) | 14 (14, 21) | 14 (14, 29) | 14 (8, 21) | 0.3 |
| **Tiredness** | 411 | 349 (84.9%) | 175 (86.2%) | 92 (83.6%) | 82 (83.7%) | 0.8 |
| **Weakness** | 410 | 343 (83.7%) | 170 (84.6%) | 94 (84.7%) | 79 (80.6%) | 0.6 |
| **Poor appetite** | 408 | 307 (75.2%) | 157 (78.1%) | 81 (73.6%) | 69 (71.1%) | 0.4 |
| **Weight loss** | 412 | 363 (88.1%) | 181 (89.2%) | 97 (87.4%) | 85 (86.7%) | 0.8 |
| **Nausea** | 410 | 209 (51.0%) | 115 (56.9%) | 56 (50.9%) | 38 (38.8%) | 0.013 |
| **Vomiting** | 409 | 112 (27.4%) | 57 (28.4%) | 29 (26.4%) | 26 (26.5%) | >0.9 |
| **Diarrhoea** | 407 | 162 (39.8%) | 93 (46.0%) | 41 (37.3%) | 28 (29.5%) | 0.020 |
| **Liking for salt** | 407 | 256 (62.9%) | 138 (68.7%) | 69 (63.3%) | 49 (50.5%) | 0.010 |
| **Dizziness** | 407 | 179 (44.0%) | 100 (49.8%) | 44 (40.0%) | 35 (36.5%) | 0.060 |
| **Loss of consciousness** | 407 | 5 (1.2%) | 3 (1.5%) | 1 (0.9%) | 1 (1.0%) | >0.9 |
| **Hypoglycaemia** | 408 | 9 (2.2%) | 4 (2.0%) | 2 (1.8%) | 3 (3.1%) | 0.8 |
| **Hypotension** | 408 | 30 (7.4%) | 16 (8.0%) | 11 (10.1%) | 3 (3.1%) | 0.14 |
| **BP (systolic)** | 427 | 110 (100, 125) | 110 (100, 123) | 114 (100, 130) | 112 (105, 121) | 0.2 |
| **BP (diastolic)** | 427 | 70 (60, 78) | 70 (60, 80) | 70 (60, 79) | 69 (60, 75) | 0.7 |
| **Any postural drop in blood pressure** | 410 | 14 (3.4%) | 11 (5.4%) | 3 (2.7%) | 0 (0.0%) | 0.038 |
| **Shock** | 411 | 5 (1.2%) | 3 (1.5%) | 1 (0.9%) | 1 (1.0%) | >0.9 |
| **Anorexia** | 409 | 172 (42.1%) | 95 (47.3%) | 45 (40.9%) | 32 (32.7%) | 0.054 |
| **Loss of axillary and pubic hair, if female** | 414 |  |  |  |  | 0.14 |
| No |  | 151 (36.5%) | 67 (32.5%) | 50 (45.5%) | 34 (34.7%) |  |
| Not applicable |  | 195 (47.1%) | 102 (49.5%) | 42 (38.2%) | 51 (52.0%) |  |
| Yes |  | 68 (16.4%) | 37 (18.0%) | 18 (16.4%) | 13 (13.3%) |  |
| **Increased pigmentation of the skin** | 395 | 180 (45.6%) | 98 (49.2%) | 46 (43.0%) | 36 (40.4%) | 0.3 |
| **Presence of anaemia** | 406 | 223 (54.9%) | 119 (59.5%) | 59 (54.1%) | 45 (46.4%) | 0.10 |
| **Haemoglobin g/dL** | 425 | 8.70 (7.40, 10.30) | 8.60 (7.50, 9.90) | 8.70 (7.40, 9.90) | 9.20 (7.40, 11.05) | 0.10 |
| **Presence of an opportunistic infection** | 425 | 422 (99.3%) | 207 (99.5%) | 111 (99.1%) | 104 (99.0%) | >0.9 |
| **White cell count X109** | 422 | 5.3 (3.5, 8.0) | 4.9 (2.7, 6.8) | 5.8 (4.3, 9.0) | 6.6 (4.4, 9.7) | <0.001 |
| **Lymphocyte count X109** | 93 | 0.8 (0.4, 1.8) | 0.6 (0.3, 1.4) | 0.9 (0.5, 1.9) | 1.1 (0.4, 3.9) | 0.2 |
| **Neutrophils** | 93 | 3 (1, 8) | 2 (1, 5) | 6 (2, 14) | 7 (4, 11) | 0.018 |
| **log10 viral load** | 97 | 4.54 (3.16, 5.35) | 5.07 (4.03, 5.55) | 3.58 (2.76, 5.10) | 3.48 (1.70, 4.33) | <0.001 |
| **Sodium mmol/L** | 407 | 134.0 (130.0, 137.0) | 134.0 (130.0, 137.0) | 134.0 (130.0, 137.0) | 133.0 (130.0, 136.0) | >0.9 |
| **Potassium mmol/L** | 408 | 4.10 (3.60, 4.60) | 4.00 (3.60, 4.60) | 4.05 (3.70, 4.50) | 4.20 (3.60, 4.70) | 0.5 |
| **Random cortisol** | 380 | 466 (369, 574) | 486 (388, 575) | 440 (357, 573) | 441 (353, 564) | 0.2 |
| **Basal cortisol** | 148 | 422 (315, 561) | 438 (314, 568) | 432 (350, 531) | 388 (269, 517) | 0.4 |
| **Stimulated cortisol** | 145 | 697 (548, 826) | 716 (529, 834) | 680 (565, 798) | 699 (568, 805) | >0.9 |
| **ACTH** | 380 | 32 (21, 51) | 34 (22, 52) | 29 (17, 48) | 32 (22, 51) | 0.6 |
| **Tuberculosis** | 428 |  |  |  |  | 0.8 |
| Checked |  | 312 (72.9%) | 155 (73.8%) | 83 (73.5%) | 74 (70.5%) |  |
| Unchecked |  | 116 (27.1%) | 55 (26.2%) | 30 (26.5%) | 31 (29.5%) |  |
| **Cryptococcus neoformans** | 428 |  |  |  |  | >0.9 |
| Checked |  | 1 (0.2%) | 1 (0.5%) | 0 (0.0%) | 0 (0.0%) |  |
| Unchecked |  | 427 (99.8%) | 209 (99.5%) | 113 (100.0%) | 105 (100.0%) |  |
| **Mycobacterium avium-intracellulare** | 428 |  |  |  |  |  |
| Unchecked |  | 428 (100.0%) | 210 (100.0%) | 113 (100.0%) | 105 (100.0%) |  |
| **Toxoplasmosis** | 428 |  |  |  |  |  |
| Unchecked |  | 428 (100.0%) | 210 (100.0%) | 113 (100.0%) | 105 (100.0%) |  |
| **Cytomegalovirus** | 428 |  |  |  |  | 0.5 |
| Checked |  | 1 (0.2%) | 0 (0.0%) | 1 (0.9%) | 0 (0.0%) |  |
| Unchecked |  | 427 (99.8%) | 210 (100.0%) | 112 (99.1%) | 105 (100.0%) |  |
| **Kaposis sarcoma** | 428 |  |  |  |  | >0.9 |
| Checked |  | 1 (0.2%) | 1 (0.5%) | 0 (0.0%) | 0 (0.0%) |  |
| Unchecked |  | 427 (99.8%) | 209 (99.5%) | 113 (100.0%) | 105 (100.0%) |  |
| **Other** | 428 |  |  |  |  | 0.3 |
| Checked |  | 114 (26.6%) | 50 (23.8%) | 31 (27.4%) | 33 (31.4%) |  |
| Unchecked |  | 314 (73.4%) | 160 (76.2%) | 82 (72.6%) | 72 (68.6%) |  |
| 1Median (IQR); n (%) | | | | | | |
| 2Kruskal-Wallis rank sum test; Pearson's Chi-squared test; Fisher's exact test | | | | | | |

# Table 2: comparing Addisons status with other variables

| Variable | **N** | **Overall**, N = 311 | **yes**, N = 311 | **no**, N = 01 | **p-value**2 |
| --- | --- | --- | --- | --- | --- |
| **Age at enrolment, median (IQR) (years)** | 31 | 36 (32, 46) | 36 (32, 46) | NA (NA, NA) |  |
| **Gender, n(%)** | 31 |  |  |  | >0.9 |
| Females |  | 16 (51.6%) | 16 (51.6%) | 0 (NA%) |  |
| Males |  | 15 (48.4%) | 15 (48.4%) | 0 (NA%) |  |
| **Ethnicity, n(%)** | 31 |  |  |  | >0.9 |
| Black African |  | 28 (90.3%) | 28 (90.3%) | 0 (NA%) |  |
| Other |  | 3 (9.7%) | 3 (9.7%) | 0 (NA%) |  |
| **Duration of current illness, median (IQR) (days)** | 30 | 14 (14, 30) | 14 (14, 30) | NA (NA, NA) |  |
| **Random cortisol** | 31 | 258 (210, 370) | 258 (210, 370) | NA (NA, NA) |  |
| **Basal cortisol** | 29 | 300 (209, 368) | 300 (209, 368) | NA (NA, NA) |  |
| **Stimulated cortisol** | 30 | 420 (338, 473) | 420 (338, 473) | NA (NA, NA) |  |
| **ACTH** | 31 | 25 (14, 56) | 25 (14, 56) | NA (NA, NA) |  |
| **BP (systolic)** | 31 | 120 (102, 128) | 120 (102, 128) | NA (NA, NA) |  |
| **BP (diastolic)** | 31 | 71 (62, 80) | 71 (62, 80) | NA (NA, NA) |  |
| **Heart rate** | 31 | 86 (78, 108) | 86 (78, 108) | NA (NA, NA) |  |
| **Hypotension** | 31 | 1 (3.2%) | 1 (3.2%) | 0 (NA%) | >0.9 |
| **Weakness** | 31 | 25 (80.6%) | 25 (80.6%) | 0 (NA%) | >0.9 |
| **Tiredness** | 31 | 27 (87.1%) | 27 (87.1%) | 0 (NA%) | >0.9 |
| **Poor appetite** | 31 | 26 (83.9%) | 26 (83.9%) | 0 (NA%) | >0.9 |
| **Weight loss** | 31 | 25 (80.6%) | 25 (80.6%) | 0 (NA%) | >0.9 |
| **Increased pigmentation of the skin** | 28 | 11 (39.3%) | 11 (39.3%) | 0 (NA%) | >0.9 |
| **Nausea** | 31 | 18 (58.1%) | 18 (58.1%) | 0 (NA%) | >0.9 |
| **Vomiting** | 31 | 8 (25.8%) | 8 (25.8%) | 0 (NA%) | >0.9 |
| **Liking for salt** | 31 | 21 (67.7%) | 21 (67.7%) | 0 (NA%) | >0.9 |
| **Hypoglycaemia** | 31 |  |  |  |  |
| No |  | 31 (100.0%) | 31 (100.0%) | 0 (NA%) |  |
| **Loss of consciousness** | 30 |  |  |  |  |
| No |  | 30 (100.0%) | 30 (100.0%) | 0 (NA%) |  |
| **Diarrhoea** | 31 | 9 (29.0%) | 9 (29.0%) | 0 (NA%) | >0.9 |
| **Dizziness** | 30 | 14 (46.7%) | 14 (46.7%) | 0 (NA%) | >0.9 |
| **Shock** | 31 |  |  |  |  |
| No |  | 31 (100.0%) | 31 (100.0%) | 0 (NA%) |  |
| **Anorexia** | 31 | 9 (29.0%) | 9 (29.0%) | 0 (NA%) | >0.9 |
| **Loss of axillary and pubic hair, if female** | 30 |  |  |  | >0.9 |
| No |  | 13 (43.3%) | 13 (43.3%) | 0 (NA%) |  |
| Not applicable |  | 14 (46.7%) | 14 (46.7%) | 0 (NA%) |  |
| Yes |  | 3 (10.0%) | 3 (10.0%) | 0 (NA%) |  |
| **Any postural drop in blood pressure** | 31 | 2 (6.5%) | 2 (6.5%) | 0 (NA%) | >0.9 |
| **Presence of anaemia** | 30 | 15 (50.0%) | 15 (50.0%) | 0 (NA%) | >0.9 |
| **Presence of an opportunistic infection** | 31 |  |  |  |  |
| Yes |  | 31 (100.0%) | 31 (100.0%) | 0 (NA%) |  |
| **Viral load (log10 Copies/mL)** | 4 |  |  |  | >0.9 |
| 2.66850705947214 |  | 1 (25.0%) | 1 (25.0%) | 0 (NA%) |  |
| 4.54181629404385 |  | 1 (25.0%) | 1 (25.0%) | 0 (NA%) |  |
| 5.04006012250337 |  | 1 (25.0%) | 1 (25.0%) | 0 (NA%) |  |
| 5.62839301750855 |  | 1 (25.0%) | 1 (25.0%) | 0 (NA%) |  |
| **Total CD4 count** | 31 | 39 (14, 50) | 39 (14, 50) | NA (NA, NA) |  |
| **Sodium mmol/L** | 31 | 135.0 (132.5, 137.0) | 135.0 (132.5, 137.0) | NA (NA, NA) |  |
| **Potassium mmol/L** | 31 | 3.90 (3.30, 4.35) | 3.90 (3.30, 4.35) | NA (NA, NA) |  |
| **Haemoglobin g/dL** | 31 | 8.70 (7.80, 10.45) | 8.70 (7.80, 10.45) | NA (NA, NA) |  |
| **White cell count X109** | 31 | 5 (3, 7) | 5 (3, 7) | NA (NA, NA) |  |
| **Lymphocyte count X109** | 6 |  |  |  | >0.9 |
| 0.360000014 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 0.49000001 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 0.600000024 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 1.100000024 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 1.309999943 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 33.59999847 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| **Neutrophils** | 6 |  |  |  | >0.9 |
| 0.430000007 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 0.920000017 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 1.019999981 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 1.539999962 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 1.659999967 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| 5.329999924 |  | 1 (16.7%) | 1 (16.7%) | 0 (NA%) |  |
| **3 followup\_patientstatus** | 14 |  |  |  | >0.9 |
| Alive |  | 10 (71.4%) | 10 (71.4%) | 0 (NA%) |  |
| Deceased --> EXIT form |  | 4 (28.6%) | 4 (28.6%) | 0 (NA%) |  |
| **6 followup\_patientstatus** | 15 |  |  |  | >0.9 |
| Alive |  | 9 (60.0%) | 9 (60.0%) | 0 (NA%) |  |
| Deceased --> EXIT form |  | 6 (40.0%) | 6 (40.0%) | 0 (NA%) |  |
| **12 followup\_patientstatus** | 19 |  |  |  | >0.9 |
| Alive |  | 12 (63.2%) | 12 (63.2%) | 0 (NA%) |  |
| Deceased --> EXIT form |  | 7 (36.8%) | 7 (36.8%) | 0 (NA%) |  |
| 1Median (IQR); n (%) | | | | | |
| 2Fisher's exact test | | | | | |

## cross-tabulation

| Variable | **Overall**, N = 311 | **PAI**, N = 71 | **SAI**, N = 241 | **p-value**2 |
| --- | --- | --- | --- | --- |
| **Age at enrolment, median (IQR) (years)** | 36 (32, 46) | 40 (35, 45) | 36 (31, 45) | 0.6 |
| **Gender, n(%)** |  |  |  | 0.7 |
| Females | 16 (51.6%) | 3 (42.9%) | 13 (54.2%) |  |
| Males | 15 (48.4%) | 4 (57.1%) | 11 (45.8%) |  |
| **Ethnicity, n(%)** |  |  |  | 0.5 |
| Black African | 28 (90.3%) | 6 (85.7%) | 22 (91.7%) |  |
| Other | 3 (9.7%) | 1 (14.3%) | 2 (8.3%) |  |
| **Duration of current illness, median (IQR) (days)** | 14 (14, 30) | 10 (7, 12) | 21 (14, 30) | 0.012 |
| **Random cortisol** | 258 (210, 370) | 344 (267, 390) | 256 (193, 345) | 0.2 |
| **Basal cortisol** | 300 (209, 368) | 315 (214, 327) | 300 (210, 378) | 0.6 |
| **Stimulated cortisol** | 420 (338, 473) | 403 (363, 435) | 421 (326, 478) | 0.6 |
| **ACTH** | 25 (14, 56) | 144 (80, 158) | 23 (12, 29) | <0.001 |
| **BP (systolic)** | 120 (102, 128) | 120 (120, 124) | 115 (100, 128) | 0.5 |
| **BP (diastolic)** | 71 (62, 80) | 70 (70, 82) | 71 (60, 78) | 0.7 |
| **Heart rate** | 86 (78, 108) | 97 (88, 111) | 85 (77, 107) | 0.11 |
| **Hypotension** | 1 (3.2%) | 0 (0.0%) | 1 (4.2%) | >0.9 |
| **Weakness** | 25 (80.6%) | 4 (57.1%) | 21 (87.5%) | 0.11 |
| **Tiredness** | 27 (87.1%) | 5 (71.4%) | 22 (91.7%) | 0.2 |
| **Poor appetite** | 26 (83.9%) | 6 (85.7%) | 20 (83.3%) | >0.9 |
| **Weight loss** | 25 (80.6%) | 7 (100.0%) | 18 (75.0%) | 0.3 |
| **Increased pigmentation of the skin** | 11 (39.3%) | 3 (60.0%) | 8 (34.8%) | 0.4 |
| **Nausea** | 18 (58.1%) | 5 (71.4%) | 13 (54.2%) | 0.7 |
| **Vomiting** | 8 (25.8%) | 4 (57.1%) | 4 (16.7%) | 0.053 |
| **Liking for salt** | 21 (67.7%) | 5 (71.4%) | 16 (66.7%) | >0.9 |
| **Hypoglycaemia** |  |  |  |  |
| No | 31 (100.0%) | 7 (100.0%) | 24 (100.0%) |  |
| **Loss of consciousness** |  |  |  |  |
| No | 30 (100.0%) | 7 (100.0%) | 23 (100.0%) |  |
| **Diarrhoea** | 9 (29.0%) | 1 (14.3%) | 8 (33.3%) | 0.6 |
| **Dizziness** | 14 (46.7%) | 4 (66.7%) | 10 (41.7%) | 0.4 |
| **Shock** |  |  |  |  |
| No | 31 (100.0%) | 7 (100.0%) | 24 (100.0%) |  |
| **Anorexia** | 9 (29.0%) | 4 (57.1%) | 5 (20.8%) | 0.2 |
| **Loss of axillary and pubic hair, if female** |  |  |  | 0.6 |
| No | 13 (43.3%) | 2 (28.6%) | 11 (47.8%) |  |
| Not applicable | 14 (46.7%) | 4 (57.1%) | 10 (43.5%) |  |
| Yes | 3 (10.0%) | 1 (14.3%) | 2 (8.7%) |  |
| **Any postural drop in blood pressure** | 2 (6.5%) | 0 (0.0%) | 2 (8.3%) | >0.9 |
| **Presence of anaemia** | 15 (50.0%) | 4 (57.1%) | 11 (47.8%) | >0.9 |
| **Presence of an opportunistic infection** |  |  |  |  |
| Yes | 31 (100.0%) | 7 (100.0%) | 24 (100.0%) |  |
| **Viral load (log10 Copies/mL)** | 4.79 (4.07, 5.19) | 5.04 (5.04, 5.04) | 4.54 (3.61, 5.09) | >0.9 |
| **CD4 count** | 39 (14, 50) | 46 (26, 61) | 35 (12, 50) | 0.3 |
| **Sodium mmol/L** | 135.0 (132.5, 137.0) | 133.0 (131.5, 136.5) | 135.5 (133.8, 137.0) | 0.3 |
| **Potassium mmol/L** | 3.90 (3.30, 4.35) | 3.60 (3.25, 3.85) | 3.95 (3.45, 4.52) | 0.3 |
| **Haemoglobin g/dL** | 8.70 (7.80, 10.45) | 10.20 (7.85, 10.35) | 8.70 (7.85, 10.60) | 0.8 |
| **White cell count X109** | 5 (3, 7) | 4 (3, 5) | 5 (4, 11) | 0.3 |
| **Lymphocyte count X109** | 1 (1, 1) | 1 (1, 1) | 1 (0, 1) | 0.7 |
| **Neutrophils** | 1.28 (0.95, 1.63) | 0.92 (0.92, 0.92) | 1.54 (1.02, 1.66) | 0.7 |
| **3 followup\_patientstatus** |  |  |  | 0.5 |
| Alive | 10 (71.4%) | 3 (100.0%) | 7 (63.6%) |  |
| Deceased --> EXIT form | 4 (28.6%) | 0 (0.0%) | 4 (36.4%) |  |
| **6 followup\_patientstatus** |  |  |  | >0.9 |
| Alive | 9 (60.0%) | 2 (50.0%) | 7 (63.6%) |  |
| Deceased --> EXIT form | 6 (40.0%) | 2 (50.0%) | 4 (36.4%) |  |
| **12 followup\_patientstatus** |  |  |  | 0.6 |
| Alive | 12 (63.2%) | 2 (50.0%) | 10 (66.7%) |  |
| Deceased --> EXIT form | 7 (36.8%) | 2 (50.0%) | 5 (33.3%) |  |
| 1Median (IQR); n (%) | | | | |
| 2Wilcoxon rank sum test; Fisher's exact test; Wilcoxon rank sum exact test | | | | |

| Variable | **Overall**, N = 4311 | **AI**, N = 311 | **No-AI**, N = 4001 | **p-value**2 |
| --- | --- | --- | --- | --- |
| **Age at enrolment, median (IQR) (years)** | 36 (31, 42) | 36 (32, 46) | 36 (31, 42) | 0.3 |
| **Gender, n(%)** |  |  |  | >0.9 |
| Females | 218 (50.8%) | 16 (51.6%) | 202 (50.8%) |  |
| Males | 211 (49.2%) | 15 (48.4%) | 196 (49.2%) |  |
| **Ethnicity, n(%)** |  |  |  | 0.3 |
| Black African | 357 (83.4%) | 28 (90.3%) | 329 (82.9%) |  |
| Other | 71 (16.6%) | 3 (9.7%) | 68 (17.1%) |  |
| **Duration of current illness, median (IQR) (days)** | 14 (14, 21) | 14 (14, 30) | 14 (14, 21) | 0.4 |
| **Random cortisol** | 468 (369, 575) | 258 (210, 370) | 486 (388, 582) | <0.001 |
| **Basal cortisol** | 422 (315, 561) | 300 (209, 368) | 473 (368, 580) | <0.001 |
| **Stimulated cortisol** | 697 (548, 826) | 420 (338, 473) | 727 (640, 859) | <0.001 |
| **ACTH** | 32 (21, 51) | 25 (14, 56) | 32 (21, 51) | 0.5 |
| **BP (systolic)** | 110 (100, 125) | 120 (102, 128) | 110 (100, 124) | 0.4 |
| **BP (diastolic)** | 70 (60, 78) | 71 (62, 80) | 69 (60, 77) | 0.074 |
| **Heart rate** | 92 (80, 110) | 86 (78, 108) | 92 (81, 110) | 0.4 |
| **Hypotension** | 30 (7.3%) | 1 (3.2%) | 29 (7.7%) | 0.7 |
| **Weakness** | 343 (83.7%) | 25 (80.6%) | 318 (83.9%) | 0.6 |
| **Tiredness** | 349 (84.9%) | 27 (87.1%) | 322 (84.7%) | >0.9 |
| **Poor appetite** | 307 (75.2%) | 26 (83.9%) | 281 (74.5%) | 0.2 |
| **Weight loss** | 363 (88.1%) | 25 (80.6%) | 338 (88.7%) | 0.2 |
| **Increased pigmentation of the skin** | 180 (45.6%) | 11 (39.3%) | 169 (46.0%) | 0.5 |
| **Nausea** | 209 (51.0%) | 18 (58.1%) | 191 (50.4%) | 0.4 |
| **Vomiting** | 112 (27.4%) | 8 (25.8%) | 104 (27.5%) | 0.8 |
| **Liking for salt** | 256 (62.9%) | 21 (67.7%) | 235 (62.5%) | 0.6 |
| **Hypoglycaemia** | 9 (2.2%) | 0 (0.0%) | 9 (2.4%) | >0.9 |
| **Loss of consciousness** | 5 (1.2%) | 0 (0.0%) | 5 (1.3%) | >0.9 |
| **Diarrhoea** | 162 (39.8%) | 9 (29.0%) | 153 (40.7%) | 0.2 |
| **Dizziness** | 179 (44.0%) | 14 (46.7%) | 165 (43.8%) | 0.8 |
| **Shock** | 5 (1.2%) | 0 (0.0%) | 5 (1.3%) | >0.9 |
| **Anorexia** | 172 (42.1%) | 9 (29.0%) | 163 (43.1%) | 0.13 |
| **Loss of axillary and pubic hair, if female** |  |  |  | 0.6 |
| No | 151 (36.4%) | 13 (43.3%) | 138 (35.8%) |  |
| Not applicable | 196 (47.2%) | 14 (46.7%) | 182 (47.3%) |  |
| Yes | 68 (16.4%) | 3 (10.0%) | 65 (16.9%) |  |
| **Any postural drop in blood pressure** | 14 (3.4%) | 2 (6.5%) | 12 (3.2%) | 0.3 |
| **Presence of anaemia** | 223 (54.9%) | 15 (50.0%) | 208 (55.3%) | 0.6 |
| **Presence of an opportunistic infection** | 424 (99.1%) | 31 (100.0%) | 393 (99.0%) | >0.9 |
| **Viral load (log10 Copies/mL)** | 4.54 (3.16, 5.35) | 4.79 (4.07, 5.19) | 4.40 (3.16, 5.35) | 0.8 |
| **CD4 count** | 31 (14, 60) | 39 (14, 50) | 31 (14, 60) | >0.9 |
| **Sodium mmol/L** | 134.0 (130.0, 137.0) | 135.0 (132.5, 137.0) | 134.0 (130.0, 137.0) | 0.067 |
| **Potassium mmol/L** | 4.10 (3.60, 4.60) | 3.90 (3.30, 4.35) | 4.10 (3.60, 4.60) | 0.12 |
| **Haemoglobin g/dL** | 8.70 (7.40, 10.30) | 8.70 (7.80, 10.45) | 8.70 (7.40, 10.30) | 0.5 |
| **White cell count X109** | 5.3 (3.5, 8.0) | 5.2 (3.1, 7.0) | 5.4 (3.7, 8.1) | 0.7 |
| **Lymphocyte count X109** | 0.8 (0.4, 1.8) | 0.9 (0.5, 1.3) | 0.8 (0.3, 1.9) | 0.6 |
| **Neutrophils** | 3 (1, 8) | 1 (1, 2) | 3 (1, 9) | 0.068 |
| **3 followup\_patientstatus** |  |  |  | 0.3 |
| Alive | 128 (82.6%) | 10 (71.4%) | 118 (83.7%) |  |
| Deceased --> EXIT form | 27 (17.4%) | 4 (28.6%) | 23 (16.3%) |  |
| **6 followup\_patientstatus** |  |  |  | 0.092 |
| Alive | 130 (78.8%) | 9 (60.0%) | 121 (80.7%) |  |
| Deceased --> EXIT form | 35 (21.2%) | 6 (40.0%) | 29 (19.3%) |  |
| **12 followup\_patientstatus** |  |  |  | 0.2 |
| Alive | 142 (76.3%) | 12 (63.2%) | 130 (77.8%) |  |
| Deceased --> EXIT form | 44 (23.7%) | 7 (36.8%) | 37 (22.2%) |  |
| 1Median (IQR); n (%) | | | | |
| 2Wilcoxon rank sum test; Pearson's Chi-squared test; Fisher's exact test | | | | |

EXIT form’, 1,ifelse(followup\_patientstatus == ‘Alive’, 0, 0))) %>% –>

EXIT form”, 3, NA), –> EXIT form”, 6, NA), –> EXIT form”, 12, NA)) %>% –>

EXIT form”, 3, NA), –> EXIT form”, 6, NA), –> EXIT form”, 12, NA)) %>% –>