## Supplementary Table 1. Summary of RT Resistance Mutations Detected Pretreatment

|  |  |
| --- | --- |
| **Mutation Classa** | **Number of Subjects n (%)** |
| **E/C/F/TAF+DRV(N = 89)** | **Baseline Regimens****(N = 46)** | **All****(N = 135)** |
| Number of Subjects With Data | 89 | 46 | 135 |
| NNRTI-Associated; n (%) | 79 (88.8) | 40 (87) | 119 (88.1) |
| Average Number of NNRTI-R Mutations | 2.2 | 2.5 | 2.3 |
|  V90I | 8 (9.0) | 5 (10.9) | 13 (9.6) |
|  A98G | 4 (4.5) | 3 (6.5) | 7 (5.2) |
|  L100I | 11 (12.4) | 8 (17.4) | 19 (14.1) |
|  K101E/H/P | 13 (14.6) | 2 (4.3) | 15 (11.1) |
|  K103N/S | 51 (57.3) | 34 (73.9) | 85 (63.0) |
|  V106A/I/M | 10 (11.2) | 1 (2.2) | 11 (8.1) |
|  V108I | 14 (15.7) | 11 (23.9) | 25 (18.5) |
|  E138A/G/K/Q/R | 6 (6.7) | 3 (6.5) | 9 (6.7) |
|  V179D/F/L/T | 8 (9.0) | 2 (4.3) | 10 (7.4) |
|  Y181C/I/V | 14 (15.7) | 12 (26.1) | 26 (19.3) |
|  Y188C/H/L | 10 (11.2) | 1 (2.2) | 11 (8.1) |
|  G190A/E/Q/S | 14 (15.7) | 5 (10.9) | 19 (14.1) |
|  H221Y | 6 (6.7) | 7 (15.2) | 13 (9.6) |
|  P225H | 8 (9.0) | 5 (10.9) | 13 (9.6) |
| NRTI-Associated; n (%) | 84 (94.4) | 44 (95.7) | 128 (94.8) |
| Average Number of NRTI-R Mutations | 2.6 | 2.5 | 2.6 |
|  TAMs | 39 (43.8) | 18 (39.1) | 57 (42.2) |
|  M41L | 19 (21.3) | 5 (10.9) | 24 (17.8) |
|  E44D | 3 (3.4) | 0 | 3 (2.2) |
|  A62V | 3 (3.4) | 5 (10.9) | 8 (5.9) |
|  K65R | 18 (20.2) | 14 (30.4) | 32 (23.7) |
|  D67N | 12 (13.5) | 6 (13) | 18 (13.3) |
|  T69D/N | 6 (6.7) | 1 (2.2) | 7 (5.2) |
|  T69 Insertion | 0 | 0 | 0 |
|  K70E/R | 14 (15.7) | 9 (19.6) | 23 (17) |
|  L74I/V | 14 (15.7) | 8 (17.4) | 22 (16.3) |
|  V75I | 3 (3.4) | 0 | 3 (2.2) |
|  F77L | 1 (1.1) | 0 | 1 (0.7) |
|  Y115F | 4 (4.5) | 2 (4.3) | 6 (4.4) |
|  V118I | 10 (11.2) | 5 (10.9) | 15 (11.1) |
|  Q151M | 0 | 0 | 0 |
|  M184V/I | 76 (85.4) | 36 (78.3) | 112 (83) |
|  L210W | 8 (9) | 2 (4.3) | 10 (7.4) |
|  T215Y/F | 19 (21.3) | 7 (15.2) | 26 (19.3) |
|  K219E/N/Q/R | 12 (13.5) | 10 (21.7) | 22 (16.3) |

NNRTI = nonnucleoside reverse transcriptase inhibitor; NRTI = nucleoside/nucleotide reverse transcriptase inhibitor; −R = resistant

## Supplementary Table 2. Pharmacokinetic Substudy Results

|  |  |  |  |
| --- | --- | --- | --- |
| **Mean (%CV)(N=15)** | **AUC(ng**•**h/mL)** | **Cmax(ng/mL)** | **Ctrough(ng/mL)** |
| EVG | 26400 (44) | 2180 (35) | 464 (79) |
| DRV | 76500 (43) | 6670 (25) | 1250 (99) |
| COBI | 7900 (43) | 997 (30) | 36 (129) |
| TAF | 89.9 (45) | 98.1 (58) | NA |
| TFV | 367 (33) | 19.3 (32) | 13.0 (34) |

AUC was calculated using the linear up/log down trapezoidal rule.

AUC = area under the plasma/serum concentration versus time curve; Cmax = maximum observed plasma concentration; COBI = cobicistat; Ctrough = trough plasma concentration; DRV = darunavir; EVG = elvitegravir; NA = not applicable; TAF = tenofovir alafenamide; TFV = tenofovir

## Supplementary Figure 1. Treatment Difference in Virologic Success at Week 48 by Subgroup



Relative to the vertical line at 0, differences on the right favor the E/C/F/TAF+DRV group and differences on the left favor the CR group.

## Supplementary Table 3. Summary of Serious Adverse Events

|  |  |  |
| --- | --- | --- |
| **Serious Adverse Events by Preferred Term** | **E/C/F/TAF + DRVn=89** | **Baseline Regimensn=46** |
| Any Serious Adverse Event | 9 (10.1%) | 1 (2.2%) |
|  Tachycardia, alcohol abuse, alcohol withdrawal syndrome, urinary tract infection | 1 (1.1%) | 0 |
|  Hemorrhoidal hemorrhage | 1 (1.1%) | 0 |
|  Small intestinal obstruction | 1 (1.1%) | 0 |
|  Non-cardiac chest pain, bronchitis | 1 (1.1%) | 0 |
|  Cellulitis | 1 (1.1%) | 0 |
|  Clostridium difficile colitis, clostridial gastroenteritis | 1 (1.1%) | 0 |
|  Sepsis | 1 (1.1%) | 0 |
|  Splenic rupture, retroperitoneal hemorrhage | 1 (1.1%) | 0 |
|  Vascular pseudoaneurysm | 0 | 1 (2.2%) |
|  Syncope, chest pain, chronic obstructive pulmonary disease | 1 ( 1.1%) | 0 |

Adverse events were coded using MedDRA 18.0.

DRV = darunavir; E/C/F/TAF = elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide