Fig. 3. Prevalence of In INSTI TDRMs amongst 231 patients with non-B subtype HIV infection

|          | 2013-16 | 2017-19 |
|----------|---------|---------|
| Number of patients | 125 | 106 |
| Age (mean and SD) | 36.8 (11) | 38 (13) |
| CD4+ cell count/mm³ (mean and SD) | 383 (286) | 355 (335) |
| CD4+ cell count percentage (mean and SD) | 19 (11.4) | 17.8 (11.8) |
| Plasma HIV RNA (copies/mL, mean and SD) | 718784 (2045027) | 568033 (1713447) |
| Pts with wild type | 108 | 94 |
| Pts with NRTI | 2 | 2 |
| Pts with NRTI | 14 | 11 |
| Pts with PI | 1 | 1 |
| Pts with NRTI+ NRTI | 5 (1 with NRTI) | 3 |
| Pts with NRTI + PI | 1 | 1 |
| Pts with 157Q mutation | 1 | 1 |
| Pts with 143C mutation | 1 | 1 |
| Pts with 51F | 1 | 1 |
| Pts with 61I | 1 | 1 |
| Pts with 61V | 20 | 5 |
| Pts with 263 | 20 (1 with PI) | 28 |
| Pts with 118K | 1 | 1 |
| Pts with 223 | 1 | 1 |
| Pts with 121CFSY | 1 | 1 |
| Pts with 67I mutation | 1 | 1 |
| Pts with 260I mutation | 1 | 4 |

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2509. Pooled Resistance Analyses of Darunavir (DRV) Once Daily (QD) Regimens and Formulations Across 10 Clinical Studies of Treatment-Naïve (TN) and Treatment-Experienced (TE) Patients with Human Immunodeficiency Virus (HIV)-1 Infection

Results. ADR: Out of 513 Filipino PLHIV from an ADR surveillance study on one year of ARV treatment, 53 (10.3%) failed (HIV VL > 1,000 copies/mL). Among these, 48 had clinically significant mutations. Table 1 shows NNRTI ADR frequen-
cies. There was no significant ADR difference between first-generation and newer generation NNRTIs. TDR: 298 treatment-naïve Filipino PLHIV underwent baselines sequencing. All 298 had SBS. 266 had successful NGS. Table 1 shows SBS and NGS TDR NNRTI resistance at a 5% minor variant cutoff. There was no significant TDR difference between first-generation and newer generation NNRTIs.

Conclusion. ADR and TDR rates to the newer NNRTIs are similar to first-generation NNRTIs. High TDR to doravirine on NGS is concerning, but its clinical significance is unclear. Etravirine had the lowest TDR and ADR and may be the most useful new-generation NNRTI. However, integrate strat transfer inhibitor-based regimens will likely be more durable.

Table 1. ADR and TDR NNRTI resistance in the Philippines.

| Antiretroviral | SBS ADR Resistance (%) among those with clin-
sically significant mutations (N=42); N=57/100 | SBS TDR Resistance (%) among those with TDR N=100 and overall (N=298) | NGS TDR Resistance (%) among those with TDR N=48/100 and overall (N=298) |
|----------------|-----------------------------------------------|------------------------------------------------|------------------------------------------------|
| DOR            | 39 (71.4) (33.3) (2.6)                         | 21 (42.7) (17.9) (1.1)                        | 20 (44.3) (17.9) (7.2)                        |
| EFV            | 48 (88.8) (88.8) (2.2)                         | 18 (36.7) (17.9) (1.1)                        | 16 (34.4) (17.9) (7.1)                        |
| ETR            | 34 (60.8) (8.8) (3.2)                          | 14 (28.1) (17.9) (2.1)                        | 12 (26.4) (17.9) (7.1)                        |
| NVP            | 41 (82.7) (8.8) (2.2)                          | 17 (34.2) (17.9) (3.1)                        | 16 (34.3) (17.9) (7.1)                        |
| RPV            | 39 (73.3) (7.7) (3.2)                          | 13 (26.5) (17.9) (3.1)                        | 12 (26.4) (17.9) (7.1)                        |
| Any NNRTI      | 61 (79.7) (79.7) (2.6)                         | 30 (60.8) (17.9) (1.1)                        | 29 (60.8) (17.9) (7.1)                        |

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2508. Virologic Suppression in Patients Switched to BIC/TAF/FTC with Baseline NNRTI and/or INSTI Resistance

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Background. BIC/TAF/FTC is the first fixed-dose combination tablet to contain both a second-generation INSTI and TAF and has therefore become a popular treatment option for HIV. Historically, patients with NRTI mutations were placed on four-drug, NRTI-containing regimens or two-drug, NRTI-sparing regimens. Recently, data have emerged supporting the use of second-generation INSTIs with tenofovir/FTC in the setting of the M184V mutation alone. There is a paucity of data, however, evaluating the use of BIC/TAF/FTC in the setting of NRTI and/or INSTI mutations. This study assessed the role of BIC/TAF/FTC in patients with baseline NRTI and/or INSTI mutations.

Methods. This was an observational retrospective study conducted at an inner city HIV clinic. Patients were eligible if they were switched to BIC/TAF/FTC with confirmed adherence and had either the M184V mutation alone, M184V plus another NRTI mutation(s), an INSTI mutation alone, or both NRTI and INSTI mutation(s) at the time of ART switch. We evaluated virologic response (HIV RNA < 200 copies/mL) and duration of BIC/TAF/FTC therapy.

Results. There were 16 patients eligible for analysis. Among the patients, 69% were male and 31% were female. The majority of patients were Black (81%). The mean age was 63 years (SD = 8.6). Thirteen patients were virologically suppressed (HIV RNA < 200 copies/mL) at baseline. The mean CD4 count at baseline was 610.4 cells/mm³ (SD ± 297.1). Mutations at baseline were as follows: M184V alone (25%), M184V plus another NRTI mutation(s) (56.25%), INSTI mutation alone (12.5%), NRTI and INSTI mutation(s) (6.25%). BIC/TAF/FTC mean duration of therapy was 10.5 months (range 6–14 months). The mean CD4 count of the patients switched to BIC/TAF/FTC was 687 cells/mm³ (SD ± 20.7). All patients switched to BIC/TAF/FTC achieved or maintained virologic suppression (HIV RNA < 200 copies/mL) with a mean HIV RNA of 26.25 copies/mL (SD ± 14.1). Fifteen of those switched to BIC/TAF/FTC had an undetectable HIV RNA level (HIV RNA < 50 copies/mL).

Conclusion. While a larger cohort and longer follow-up period is needed, BIC/TAF/FTC may maintain virologic suppression in patients with select baseline NRTI and/or INSTI mutations.

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2507. Transmitted and Acquired NNRTI Resistance in the Philippines: Are Newer Generation NNRTIs a Viable Option?
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Background. Doravirine, rilpivirine, and etravirine are newer generation NNRTIs. However, integrase strand transfer inhibitor-based regimens will likely be more durable.

Methods. We reanalyzed Sanger-Based sequences (SBS) from an ADR surveillance study using the Stanford HIV Drug Resistance Database.