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# Switching from enfuvirtide to etravirine – efficacy results from the etravirine early access programme

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## Abstract

The next-generation NNRTI etravirine (ETR; TMC125) and the fusion inhibitor enfuvirtide (ENF) have shown strong efficacy in the DUET and TORO trials, respectively. Switching from ENF to ETR could improve convenience and tolerability, and reduce treatment costs. In the TMC125-C214 trial (global ETR expanded access programme), treatment-experienced patients with undetectable HIV RNA levels were permitted to switch from ENF to ETR.

Patients who switched from ENF to ETR, with screening HIV RNA <50 copies/mL, were followed up for 24 weeks. Data were analysed for patients in Europe and Canada. Patients could optimise other parts of the background regimen (BR) at the time of switch from ENF to ETR.

Overall, there were 37 patients switching from ENF to ETR in Europe (n=22) and Canada (n=15). Of these, 11% were female, 95% were Caucasian, with a mean age of 48 years. The baseline median CD4 cell count was 380 cells/uL (95% confidence interval [CI]: 312–449). Within this study, 36 of the 37 patients (97%) used darunavir with low-dose ritonavir (DRV/r) in the BR, with raltegravir used in 62%, maraviroc in 16%, and NRTIs for 89%. The percentage of patients with HIV RNA suppressed below 50 copies/mL was 83% at Week 4, 86% at Week 12 and 95% at Week 24. Of those with HIV RNA not <50 copies/mL at Week 12, there were five HIV RNA levels just above the detection limit (50, 52, 52, 58 and 217 copies/mL). One additional patient had HIV RNA of 692 copies/mL at screening, but <50 copies/mL at baseline. This patient had HIV RNA of 5,070 at Week 12 and 4,730 at Week 24, before changing treatment. This patient is not included in the analysis, because the screening HIV RNA was >50 copies/mL. There were four serious adverse events (AEs) reported: these were all unrelated to ETR treatment by the investigators and the dose of ETR was not changed.

The vast majority of patients who switched from ENF to ETR have sustained HIV RNA suppression <50 copies/mL for up to 24 weeks of study, with stable or rising CD4 cell counts.

## Methods

- Patients who switched from ENF to ETR, with HIV RNA <50 copies/mL at screening, were followed up for 24 weeks
- Patients could optimise other parts of the BR at the time of switch from ENF to ETR
- This analysis includes 37 patients with HIV RNA <50 copies/mL at screening, and HIV RNA data to at least Week 12, in Europe and Canada
- One additional patient had HIV RNA of 692 copies/mL at screening, but <50 copies/mL at baseline. This patient had HIV RNA of 5,070 at Week 12 and 4,730 at Week 24, before changing treatment. This patient is not included in the analysis, because the screening HIV RNA was above 50 copies/mL

## Countries included

Country	Number of patients (%) (N=37)
Belgium	4 (11)
Canada	15 (40.5)
Denmark	2 (5.5)
Germany	4 (10.8)
Greece	3 (8.1)
Italy	2 (5.5)
Spain	7 (18.9)

## Baseline characteristics

Parameter	All patients (N=37)
Age, years (mean, range)	48 (36–62)
Gender, n (%)	
Male	33 (89)
Female	4 (11)
Race, n (%)	
Caucasian	35 (95)
Black	0
Hispanic	1 (2.7)
Oriental/Asian	1 (2.7)
CD4 cell count, cells/uL (mean, 95% CI)	380 (312–449)
HIV RNA	All <50 copies/mL

## NRTIs used with ETR

NRTI, n (%)	Number of patients (N=37)
Any NRTI	33 (89.2)
Tenofovir	24 (69.4)
Lamivudine	18 (48.6)
Emtricitabine	15 (40.5)
Zidovudine	6 (16.2)
Abacavir	9 (24.3)
Didanosine	1 (2.7)
Stavudine	1 (2.7)

## Other ARVs used with ETR

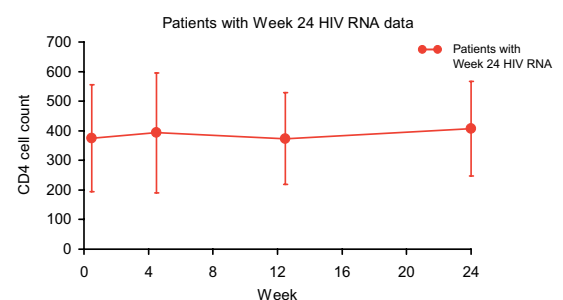
ARV, n (%)	Number of patients (N=37)
Total use of	
Darunavir/r	36 (97.3)
Raltegravir	23 (62.2)
Maraviroc	6 (16.2)
Of which new use of	
Darunavir/r	19 (51.4)
Raltegravir	12 (32.4)
Maraviroc	5 (13.5)

ARV = antiretroviral

## HIV RNA results

- At Week 12, 32/37 (86%) patients had HIV RNA <50 copies/mL
  - the five patients with HIV RNA >50 copies/mL had values of 52, 52, 56, 58 and 217 copies/mL
- At Week 24, 35/37 (95%) patients had HIV RNA <50 copies/mL
  - one patient had missing data, and one patient had HIV RNA 50 copies/mL
- Patients with HIV RNA >50 copies/mL generally had HIV RNA levels just over the assay detection limit at single timepoints, which can be considered virological 'blips'. No patient had HIV RNA levels >400 copies/mL during follow-up

## Mean CD4 cell counts over time (± standard deviation)



## Summary safety

- By Week 24, there were four serious AEs reported in three patients (one myocardial infarction and chest pain, one psychotic disorder, one bacterial pneumonia): these were all unrelated to ETR treatment by the investigators and the dose of ETR was not changed

- There were no treatment discontinuations for AEs

## Conclusions

- In the early access programme in Europe and Canada, 37 patients with HIV RNA <50 copies/mL at screening switched from ENF to ETR. These patients also used DRV/r (n=36), raltegravir (n=23), maraviroc (n=6) and NRTIs (n=33)
- In the observed data analysis, HIV RNA was <50 copies/mL for 32/37 (86%) patients at Week 12, 35/37 (95%) patients at Week 24. CD4 cell counts remained stable during follow-up
- ETR may be an effective substitute for injectable ENF, for reasons of intolerance or patient preference. Further investigation of this approach is warranted

## Acknowledgements

- We express our gratitude to the patients that participated in the study, as well as the study centre staff, the Tibotec personnel (especially Hilde Vanaken, Yvonne van Delft and Tunde Gyarmati), the principal investigators and the country coordinators.