

# The Next Generation

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## Background

The increasing availability of generic antiretrovirals (ARVs) provides alternative (and cheaper) ways of delivering established effective HIV treatments, including multi-tablet combinations (MTCs) instead of single tablet regimens (STRs). The new Regional ARV contract which came into effect on 1st September 2015 resulted in a significant price increase for some centres of all Truvada® (TVA)-based fixed-dose combination ARVs. Significant potential cost savings were identified if suitable patients switched from Atripla® or TVA to equivalent or similar MTCs including generics.

## Method

- Switches from Atripla® to either tenofovir (TDF) /generic lamivudine 300mg (g3TC)/generic efavirenz 600mg (gEFV) or TVA/gEFV were prioritised to maximise cost savings. Patients who were stable on Atripla® (viral load <40copies/ml with no clinical reason to switch) were identified by their clinic doctor during routine appointments.
- Clinicians were asked to assess during clinic visits each patient's suitability, to discuss the option of switch with those deemed eligible and to provide the relevant patient information leaflet(s) (PIL).
- Patients had a pharmacist consultation to discuss the switch and 2-week post-switch telephone follow up to assess adherence and tolerability. No additional blood tests were done post switch to MTCs from Atripla®.
- Patient representatives were consulted and PILs were produced to facilitate informed decision-making and to minimise the risk of new regimens being taken incorrectly.
- A review of clinical case-notes was performed to identify how many patients were asked to switch and reasons for not switching.
- Estimated cost savings were calculated for the financial year 2015-16.

## Conclusion

Most patients were willing to switch a stable regimen in order to save the clinic/NHS money. Of those who switched, pill burden was not reported to be a problem and no adherence concerns were identified. A high degree of patient and clinician engagement and transparency about the rationale were the key features of this switch programme.

Significant cost savings can be achieved, with no reduction in quality of care, by switching stable patients from TVA- based STRs to MTCs including generic ARVs. The savings can help mitigate the impact of increasing demand for ARVs to treat HIV and prevent transmission, and ongoing budget constraints. However, whilst drug costs are reduced, there is an up-front additional cost (pharmacy staff time) incurred in switching stable patients, which is currently unfunded. An 'invest to save' approach by NHS England could result in more widespread adoption of such switch programmes.

## Results

- On 1st August 2015, 427 patients were being prescribed Atripla®.
- Between August 2015 and March 2016, 190 (45%) of them had a discussion with their clinician about switching to either TDF/g3TC/gEFV or TVA/g EFV. 219 (51%) patients did not have a generic switch discussion documented during this period (see Figure 1). The remaining 18 sets of notes (4%) were unavailable at the time of audit data collection.
- By 31st March 2016, 39% (74/190) were documented to have declined to switch from Atripla® to a MTC (see Figure 2). However, 54% (103/190) had either switched (71/190, 37%) or were planning to at a more convenient time. Of the 71 patients (62 male) who had already switched to MTCs, 64 (90%) remain on them. One patient (Atripla® to TVA/EFV switch) transferred to another clinic.
- For patients who switched between August and early November 2015 (17 patients), six-month viral load results were all <40 copies. Self-reported adherence remained high and no patients reported pill burden as a reason to switch back.

## Discontinuations

- 7 (10%) switched back to Atripla® from the MTCs due to side-effects (sleep disturbance, headaches, nausea and diarrhoea), resulting in resolution of symptoms. (See Table 1.)
- 1 patient was worried about the potential side-effects of 3TC and its efficacy after reading the PIL, so switched back to Atripla®.
- 1 patient who switched from Atripla® to TVA/gEFV, experienced new onset sleep disturbance and was subsequently switched to Eviplera®.

Table 1. Side-effects reported by patients who discontinued MTCs including generic ARVs.

Side-effects	No. patients =5 TDF/g3TC/gEFV	No. patients =2 TVA/gEFV
Sleep disturbance	1	1
Headaches	3	
Nausea	1	
Diarrhoea	1	1
Worried about potential side-effects	1	

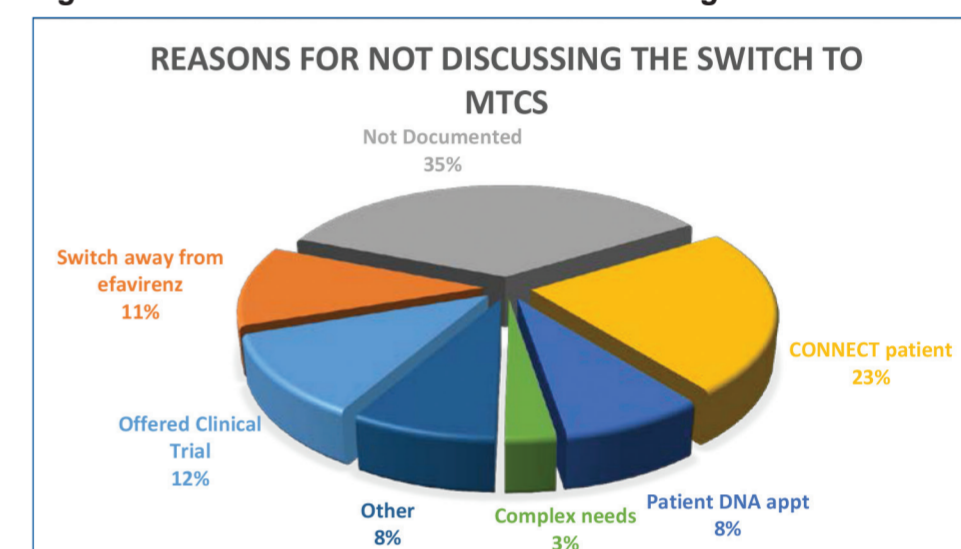
## Financial impact

Approximately £31,000 of drug cost savings were achieved over the 8 month period. If all patients who have switched remain on their new regimen the annual drug savings would be £99,413.

Table 2. Cost savings per month

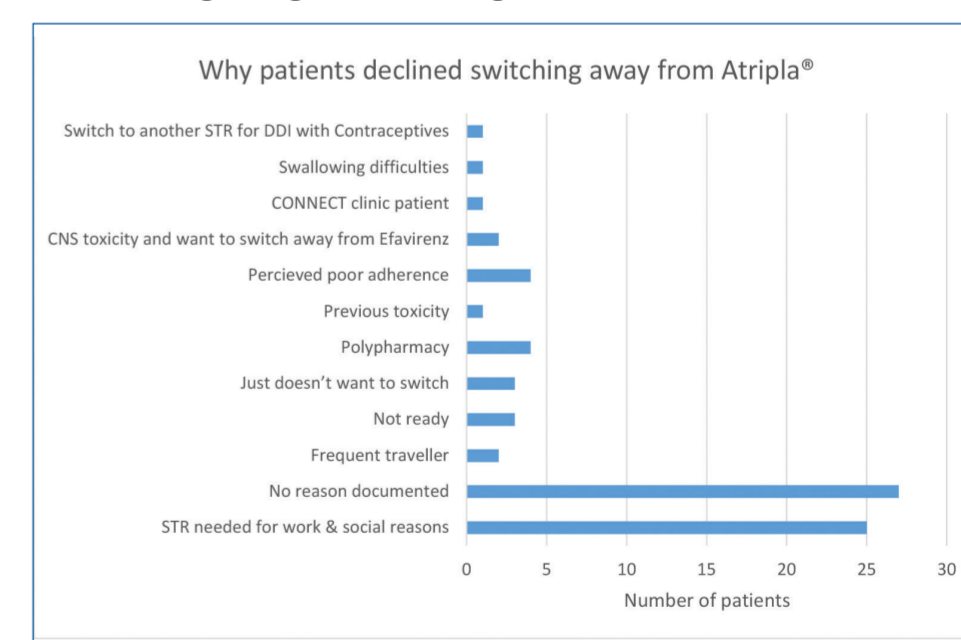
Switched from	Switched to	Cost saving per patient per month (£)	Number of patients	Cost Saving per month (£)
Atripla®	TDF / 3TC /EFV	170.15	41	6976.15
Atripla®	TVA/EFV	56.88	23	1308.24
Total			64	8284.39

Figure 1: Doctors' reasons for not discussing switch.



- Over 20% of patients were part of the 'CONNECT' email clinic, in which they only have one face-to-face appointment with their clinic doctor annually.
- 11% of patients disclosed previously unreported CNS disturbance and therefore switched to a regimen without efavirenz.

Figure 2. Patients' reasons for declining a switch from Atripla® to TDF/g3TC/gEFV or TVA/gEFV



## Summary

- MTCs including generic ARVs were highly acceptable to patients.
- No patients reported pill burden as a reason to switch back to Atripla®.
- Significant cost savings can be achieved with the use of MTCs including generic ARVs.

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