

MANAGEMENT OF REPORTED SIDE EFFECTS TO PREP:

HIGH RATES OF RETENTION ON PREP AFTER SWITCHING TO A DIFFERENT F/TDx GENERIC BRAND

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Reasons for F/TDx PrEP discontinuation	Side effects category					Symptoms management			Initial generic F/TDx PrEP brand(s) not tolerated	PrEP switched to	OUTCOME post switch
	SKIN	GASTRO- INTESTINAL	FATIGUE	HEADACHE	ARTHRALGIA	Switch from EBD F/TDF to daily	Incremental micro-dosing	Symptomatic treatment			
Skin rash (hypersensitivity reaction)	•							•	Lupin	F/TAF (Descovy®)	Skin rash on F/TAF. currently off PrEP. Cabotgravir LA PrEP compassionate use requested
Skin rash, itchiness	•							•	Amarox	Lupin	Skin rash on Lupin F/TDx, currently off PrEP. Advised to trial F/TAF (Descovy®)
Nausea		•						•	Lupin	Amarox	Persisting nausea
Nausea, vomiting		•						•	Amarox	Lupin	Persisting nausea and vomiting
Headache, nausea, swelling				•				•	Amarox, Lupin	MacLeods	Headache, skin rash, currently off PrEP
Skin rash, itchiness, nausea, diarrhoea	•	•						•	Amarox	MacLeods	Skin rash, urticarial reaction, currently off PrEP – referred to allergology
Nausea, vomiting		•						•	Lupin	F/TAF (Descovy®)	Tolerates well, continues PrEP
Nausea, bloating		•						•	Amarox	F/TAF (Descovy®)	Tolerates well, continues PrEP
Bloating, diarrhoea		•							Amarox	Lupin	Tolerates well, continues PrEP
Nausea, bloating		•						•	Mylan, AmaroX	Lupin	Tolerates well, continues PrEP
Abdominal pain, bloating		•							Amarox	MacLeods	Tolerates well, continues PrEP
Skin rash	•								Amarox	MacLeods	Tolerates well, continues PrEP
Abdominal pain, bloating		•						•	Amarox	Lupin	Tolerates well, continues PrEP
Facial pain and joint swelling					•			•	Truvada®, AmaroX	MacLeods	Tolerates well, continues PrEP
Bloating, diarrhoea		•						•	Amarox	Lupin	Tolerates well, continues PrEP
Skin rash, itchiness	•								Amarox	Lupin	Tolerates well, continues PrEP
Skin rash, itchiness	•								Amarox	Lupin	Tolerates well, continues PrEP
Nausea, palpitations		•						•	Amarox	Lupin	Tolerates well, continues PrEP
Nausea, diarrhoea, headache, fatigue, dry mouth		•	•	•				•	Amarox, Lupin, Mylan	MacLeods	Tolerates well, continues PrEP
Urticarial reaction	•							•	TEVA	Amarox	Tolerates well, continues PrEP
Nausea, diarrhoea, fatigue		•	•					•	Lupin, TEVA	Amarox	Tolerates well, continues PrEP
Nausea		•							Amarox	Lupin	Tolerates well, continues PrEP
Skin rash	•								Lupin	Amarox	Tolerates well, continues PrEP
Abdominal pain, diarrhoea		•						•	Amarox	Lupin	Tolerates well, continues PrEP
Hand joints swelling					•				Lupin	Amarox	Tolerates well, continues PrEP
Nausea, bloating		•							Amarox	Lupin	Tolerates well, continues PrEP
Abdominal pain, bloating		•							Biogaran	Lupin	Tolerates well, continues PrEP
Bloating, diarrhoea		•							Amarox	Lupin	Tolerates well, continues PrEP
Vomiting, bloating		•						•	Amarox	MacLeods	Follow up pending
Fixed drug eruption	•							•	Amarox	MacLeods	Lost at follow up
Skin rash, dizziness, diarrhoea	•	•						•	Amarox, TEVA, Lupin	MacLeods	Lost at follow up
Nausea, abdominal cramping, fatigue, depression		•	•						Amarox	F/TAF (Descovy®)	Lost at follow up
Headache, nausea		•		•					Mylan	Lupin	Lost at follow up
Skin rash, itchiness	•							•	Amarox	MacLeods	Lost at follow up

Table 1. List of non-renal, non-bone side effects reported to F/TDx PrEP, their management and reported outcomes

BACKGROUND

Generic emtricitabine/tenofovir-disoproxil (F/TDx) PrEP is dispensed for free to whom is deemed eligible for it in United Kingdom. The generic manufacturer can change depending on availability. We have the possibility to source alternate generic F/TDx brands when one is not tolerated.

Gastro-intestinal symptoms (mostly abdominal pain, diarrhoea, nausea and bloating) are commonly reported side-effects (2–20%) amongst F/TDx PrEP users. Fatigue, headache and – less frequently – skin hypersensitivity reactions have also been occasionally attributed to PrEP intake. Although PrEP related side-effects rarely lead to the drug being discontinued, we describe how we managed individuals reporting non-bone, non-renal (NBNR) adverse drug reactions (ADR)-related PrEP discontinuation and their return to PrEP intake as main option for HIV prevention.

RESULTS

PrEP discontinuation due to NBNR side effects occurred in 34 individuals using F/TDx PrEP, with most PrEP users (30/34, 88%) discontinuing PrEP intake within four weeks since its start. NBNR side effects represent about 15% of the referrals to our “PrEP review service”. In total, 32/34 (94%) were gay, bisexual or other men having sex with men (GBMSM), with a median age of 32 years (IQR 29–37 years). Reasons leading to PrEP discontinuation were: 22/34 (65%) ≥1 gastro-intestinal side effects, 11/34 (32%) onset of an erythematous skin rash, 3/34 (9%) headache, 3/34 (9%) fatigue and 2/34 (6%) arthralgia, with seven individuals reporting symptoms related to 2 or more categories leading to PrEP interruption (reported side effects and management are listed in Table 1). All were advised to switch from their initial F/TDx PrEP formulation to either an alternative generic F/TDx PrEP or to emtricitabine/tenofovir-alafenamide (F/TAF), according to eligibility for the latter. Supportive medications to mitigate reported symptoms were routinely offered to PrEP users and 13/34 (38%) opted to take at least one (i.e. antiemetics, antispasmodics or antidiarrheal). Some PrEP users also chose to take PrEP with food to aid tolerability. In case of reported immediate non-severe skin reactions (with an onset of a skin rash within 6 hours from PrEP intake) and/or in case of severe gastro-intestinal side-effects, PrEP users (14/34, 41%) were advised to re-start PrEP on incremental micro-dosing (consisting of starting with ¼ F/TDx PrEP dose for 3–5 days, then increasing to ½ dose for 3–5 days and then moving to a whole tablet, if tolerated), with strict advice regarding condom usage until seven days on one tablet once daily. Lastly, 3/34 (9%) were asked to switch from event-based to daily F/TDx PrEP to aid gastrointestinal tolerability. Of those with available follow-up, 22/28 (79%) reported symptoms improvement or complete symptoms resolution and were able to remain on PrEP. Gastro-intestinal symptoms resolved in 16/18 (89%) PrEP users, when follow-up was available. In six cases, switching to another generic F/TDx formulation (or F/TAF) did not improve symptoms (3 users reported an erythematous skin rash, 3 gastrointestinal symptoms, 1 headache). Of those reporting skin manifestations attributed to PrEP with available follow-up 5/8 (62%) witnessed a resolution of their rash when switched to a different generic F/TDx. In total, 4/28 (14%) are currently off PrEP and waiting for a further management to restart PrEP as HIV prevention.

METHODS

We performed electronic patients’ notes review of individuals referred to our “PrEP review service” at 56 Dean Street, a sexual health clinic in London (UK) between January 2022–May 2024 and reporting PrEP discontinuation due to non-renal, non-bone related side effects, which were included in the descriptive analysis. The descriptive analysis was carried out as a service evaluation and therefore Research ethic committee approval was not required. All suspected side effects or ADRs were reported via our national Yellow Card reporting website.

CONCLUSIONS

- Re-challenging PrEP with an alternate generic F/TDx formulation or F/TAF may help overcome reported side effects or mild skin reactions that previously warranted PrEP interruption.
- We demonstrate the value of a PrEP review service and an individualised approach to side effect management in order to support PrEP persistence.
- Widening the array of generic PrEP formulations and PrEP options available in our clinic facilitated to increase the number of PrEP users retained in HIV prevention care.