

Long-term use medications and FTC/TDF PrEP

Revised October 2024

This is a summary of **key long-term use medications** to be avoided or used with caution with **emtricitabine/tenofovir-DF (FTC/TDF)** when used as PrEP.

- Interactions shown are for tenofovir disoproxil fumarate, but are expected to apply to other tenofovir disoproxil compounds (i.e., tenofovir disoproxil maleate, tenofovir disoproxil phosphate, tenofovir disoproxil succinate).
- Full details and interactions with additional comedications can be found at hiv-druginteractions.org.
- The renal safety of on-demand and daily dosed FTC/TDF PrEP was shown to be good in the ARNS-PREVENIR study ([Liegeon et al, 2022](#)).

	Advice	Comment
Analgesics		
Aspirin	Avoid	Risk of nephrotoxicity with TDF and high dose or multiple NSAIDs. The risk is increased if an NSAID is used for a long duration, if the patient has a pre-existing renal dysfunction, has a low body weight, or receives other drugs that may increase tenofovir exposure. Monitor renal function.
Celecoxib	Avoid	
Dexketoprofen	Avoid	
Diclofenac	Avoid	
Etoricoxib	Avoid	
Ibuprofen	Avoid	
Indometacin	Avoid	
Ketorolac	Avoid	
Mefenamic acid	Avoid	
Meloxicam	Avoid	
Naproxen	Avoid	
Nimesulide	Avoid	
Piroxicam	Avoid	
Antiarrhythmics		
Amiodarone	Caution	Increased TDF absorption.
Quinidine	Caution	Monitor for TDF side effects.
Anticonvulsants		
Topiramate	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.
Antidepressants		
Lithium	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.
Antifungals		
Amphotericin B	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.
Fluconazole	Caution	Increased TDF absorption. Monitor for TDF side effects.
Flucytosine	Caution	Monitor haematological parameters
Itraconazole	Caution	Increased TDF absorption. Monitor for TDF side effects.
Ketoconazole	Caution	
Posaconazole	Caution	
Voriconazole	Caution	
Antiprotozoals		
Eflornithine	Caution	Monitor renal function.
Meglumine antimoniate	Caution	
Pentamidine	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.
Pyrimethamine	Caution	Monitor renal function.
Antivirals		
Aciclovir	Caution	Monitor renal function.
Adefovir	Contra-indicated	Risk of tubular necrosis. Contraindicated.
Cidofovir	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.
Famciclovir	Caution	Monitor renal function.
Foscarnet	Avoid	Risk of nephrotoxicity with TDF.
Ganciclovir	Avoid	Monitor renal function.
Ledipasvir/Sofosbuvir	Caution	Increased TDF absorption. Monitor for TDF side effects.
Sofosbuvir/Velpatasvir	Caution	
Sofosbuvir/Velpatasvir/Voxilaprevir	Caution	
Valaciclovir	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.
Calcium Channel Blockers		
Verapamil	Caution	Increased TDF absorption. Monitor for TDF side effects.

	Advice	Comment	
Cancer Therapies			
Capecitabine	Caution	Monitor for capecitabine side effects	
Carboplatin	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.	
Cisplatin	Avoid	Monitor renal function and haematological parameters.	
Dacarbazine	Caution	Risk of nephrotoxicity with TDF. Monitor renal function.	
Ifosfamide	Avoid		
Lenalidomide	Avoid		
Lomustine	Avoid		
Methotrexate	Avoid		
Mitomycin	Avoid		
Neratinib	Caution		Increased TDF absorption. Monitor for TDF side effects.
Osimertinib	Caution		Monitor for TDF side effects.
Oxaliplatin	Avoid		Risk of nephrotoxicity with TDF. Monitor renal function.
Palbociclib	Caution		Increased TDF absorption. Monitor for TDF side effects.
Pemigatinib	Caution		
Ponatinib	Caution		
Pralsetinib	Caution		
Ribociclib	Caution		
Ruxolitinib	Caution	Risk of nephrotoxicity with TDF. Monitor renal function.	
Sorafenib	Avoid		
Sotorasib	Caution		Increased TDF absorption. Monitor for TDF side effects.
Tepotinib	Caution		Monitor for TDF side effects.
Diabetes Therapies			
Canagliflozin	Avoid	Risk of bone toxicity.	
Herbals/Supplements/Vitamins			
Cubeb pepper	Caution	Increased TDF absorption. Monitor for TDF side effects.	
Green tea extracts	Caution	Effect on TDF is unclear.	
Liquorice	Caution	Increased TDF absorption. Monitor for TDF side effects.	
Turmeric	Caution	Effect on TDF is unclear.	
Hypertension / Heart Failure Agents			
Bumetanide	Caution	Monitor renal function.	
Furosemide	Caution		
Hydralazine	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.	
Ranolazine	Caution	Increased TDF absorption. Monitor for TDF side effects.	
Sacubitril	Caution	Monitor renal function.	
Immune Modulators			
Hydroxyurea (Hydroxycarbamide)	Avoid	Risk of pancreatitis and hepatitis.	
Interferon alpha	Avoid	Risk of hepatic decompensation.	
Interleukin 2 (Aldesleukin)	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.	
Peginterferon alfa-2a	Avoid	Risk of hepatic decompensation.	
Peginterferon alfa-2b			
Immunosuppressants			
Ciclosporin	Caution	Increased TDF absorption. Monitor for TDF side effects.	
Mycophenolate	Caution	Monitor renal function.	
Sirolimus	Caution		
Tacrolimus	Caution		
Other			
Acetazolamide	Caution	Monitor renal function.	
Penicillamine	Avoid	Risk of nephrotoxicity with TDF. Monitor renal function.	
Probenecid	Caution	Monitor renal function.	
Pyridostigmine	Caution	Risk of nephrotoxicity with TDF. Monitor renal function.	
Zoledronic acid	Avoid		

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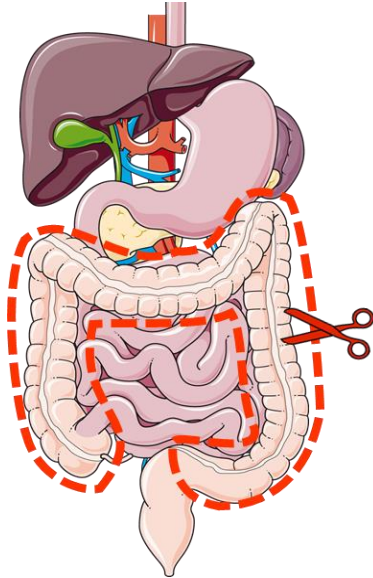
Effect of gastrointestinal surgery/disorders on FTC/TDF PrEP

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Potential pharmacokinetic changes after colonic resection

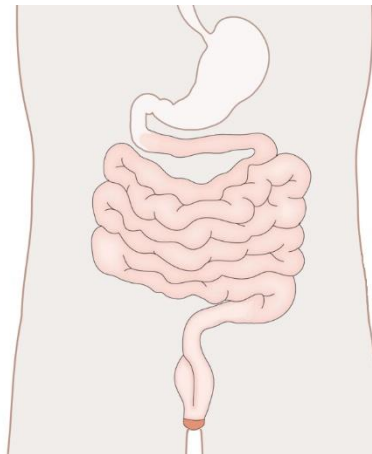
Surgery

Adapted from: www.smart.servier.com

Effect on local delivery of PrEP

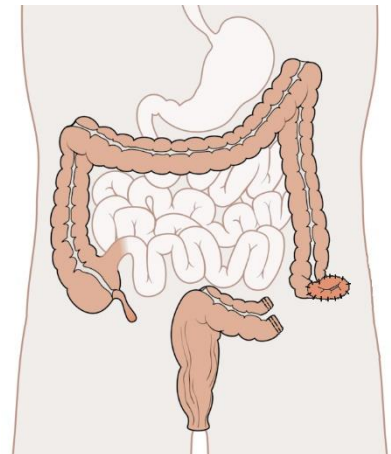
Ileoanal Anastomosis

No effect – pouch functions as new rectum



Colostomy/Ileostomy

No delivery to the rectal stump



- Impact of colonic resection on absorption of ARVs likely to be limited.
- No local delivery of oral PrEP (FTC, tenofovir) to the rectal stump following colostomy/ileostomy. Daily PrEP, rather than event-driven PrEP, is recommended.

Potential pharmacokinetic changes after bariatric surgery and with gastrointestinal disorders

- A case report describes use of the standard FTC/TDF PrEP dose in a man with a total gastrectomy (with Roux and Y anastomosis) which resulted in lower FTC and tenofovir AUC and C_{max} compared with population reference values. Doubling the FTC/TDF dose reversed the lower exposure, in particular for tenofovir. ([Roelofsen EE et al. AIDS. 2020; 34\(13\):1989-1991](#))
- There are also case reports of significantly lower trough plasma tenofovir concentrations (after supervised intake) in four FTC/TDF PrEP users with bariatric surgery or gastrointestinal disorders (sleeve gastrectomy, terminal ileitis, coeliac disease, or chronic diarrhoea). Trough plasma tenofovir concentrations in these users were 21 ± 9.1 ng/ml compared to 138 ± 85 ng/ml in PrEP recipients without gastrointestinal disorders. ([Calcagno A et al. Antimicrob Agents Chemother. 2020; 65\(1\):e01902-20](#))
- When FTC/TDF PrEP is used in patients with gastrointestinal disorders or following gastrointestinal surgery, these patients may require TDM with dose increase if exposure is low.