

# Interactions with NRTIs

Charts revised June 2019. Full information available at [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

Please note that if a drug is not listed it cannot automatically be assumed it is safe to coadminister.

	ABC	ddl	FTC	F/TAF	F/TDF	3TC	d4T	TDF	ZDV
<b>Anaesthetics &amp; Muscle Relaxants</b>									
Alcuronium	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bupivacaine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cisatracurium	◆	◆	◆	◆	◆	◆	◆	◆	◆
Desflurane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dexmedetomidine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Enflurane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ephedrine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Halothane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Isoflurane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ketamine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nitrous oxide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Propofol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rocuronium	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sevoflurane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sufentanil	◆	◆	◆	◆	◆	◆	◆	◆	◆
Suxamethonium (succinylcholine)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tetracaine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Thiopental	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tizanidine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vecuronium	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Analgesics</b>									
Alfentanil	◆	◆	◆	◆	◆	◆	◆	◆	◆
Aspirin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Buprenorphine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Celecoxib	◆	◆	◆	◆	◆	◆	◆	◆	◆
Codeine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dextropropoxyphene	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diamorphine (diacetylmorphine)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diclofenac	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dihydrocodeine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fentanyl	◆	◆	◆	◆	◆	◆	◆	◆	◆
Hydrocodone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Hydromorphone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ibuprofen	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mefenamic acid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Methadone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Morphine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Naproxen	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nimesulide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxycodone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Paracetamol (Acetaminophen)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pethidine (Meperidine)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Piroxicam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tapentadol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tramadol	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Anthelmintics</b>									
Albendazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diethylcarbamazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ivermectin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levamisole (Ergamisol)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mebendazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Niclosamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxamniquine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Praziquantel	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pyrantel	◆	◆	◆	◆	◆	◆	◆	◆	◆
Suramin sodium	◆	◆	◆	◆	◆	◆	◆	◆	◆
Triclabendazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Antiarrhythmics</b>									
Amiodarone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bepidil	◆	◆	◆	◆	◆	◆	◆	◆	◆
Disopyramide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dofetilide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flecainide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lidocaine (Lignocaine)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mexiletine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Propafenone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Quinidine	◆	◆	◆	◆	◆	◆	◆	◆	◆

For personal use only. Not for distribution.

	ABC	ddl	FTC	F/TAF	F/TDF	3TC	d4T	TDF	ZDV
<b>Antibacterials</b>									
Amikacin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Amoxicillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ampicillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Azithromycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bedaquiline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Capreomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cefalexin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cefazolin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cefixime	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cefotaxime	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ceftazidime	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ceftriaxone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chloramphenicol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ciprofloxacin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clarithromycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clavulanic acid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clindamycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clofazimine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cloxacillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cycloserine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dapsone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Delamanid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Doxycycline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ertapenem	◆	◆	◆	◆	◆	◆	◆	◆	◆
Erythromycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ethambutol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ethionamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flucloxacillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gentamicin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Imipenem/Cilastatin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Isoniazid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Kanamycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levofloxacin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Linezolid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Meropenem	◆	◆	◆	◆	◆	◆	◆	◆	◆
Metronidazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Moxifloxacin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nitrofurantoin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ofloxacin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Para-aminosalicylic acid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Penicillins	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pyrazinamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rifabutin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rifampicin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rifapentine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rifaximin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Spectinomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Streptomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sulfadiazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Telithromycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tetracyclines	◆	◆	◆	◆	◆	◆	◆	◆	◆
Trimethoprim/Sulfamethoxazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vancomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Anti-coagulant, Anti-platelet and Fibrinolytic</b>									
Acenocoumarol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Apixaban	◆	◆	◆	◆	◆	◆	◆	◆	◆
Argatroban	◆	◆	◆	◆	◆	◆	◆	◆	◆
Aspirin (anti-platelet)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Betrixaban	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clopidogrel	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dabigatran	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dalteparin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dipyridamole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Edoxaban	◆	◆	◆	◆	◆	◆	◆	◆	◆
Eltrombopag	◆	◆	◆	◆	◆	◆	◆	◆	◆
Enoxaparin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fondaparinux	◆	◆	◆	◆	◆	◆	◆	◆	◆
Heparin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Phenprocoumon	◆	◆	◆	◆	◆	◆	◆	◆	◆
Prasugrel	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rivaroxaban	◆	◆	◆	◆	◆	◆	◆	◆	◆
Streptokinase	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ticagrelor	◆	◆	◆	◆	◆	◆	◆	◆	◆
Warfarin	◆	◆	◆	◆	◆	◆	◆	◆	◆

**Key to abbreviations**

ABC	Abacavir (Ziagen <sup>®</sup> )
ddl	Didanosine (Videx <sup>®</sup> , Videx-EC <sup>®</sup> )
FTC	Emtricitabine (Emtriva <sup>®</sup> )
F/TAF	Emtricitabine + Tenofovir alafenamide (Descovy <sup>®</sup> )
F/TDF	Emtricitabine + Tenofovir-DF (PrEP)
3TC	Lamivudine (EpiVir <sup>®</sup> )
d4T	Stavudine (Zerit <sup>®</sup> )
TDF	Tenofovir disoproxil fumarate (Viread <sup>®</sup> )
ZDV	Zidovudine (Retrovir <sup>®</sup> )

**Key to symbols**

●	These drugs should not be coadministered
■	Potential interaction – may require close monitoring, alteration of drug dosage or timing of administration
▲	Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment is unlikely to be required
◆	No clinically significant interaction expected

Where advice differs between countries, and/or between boosted and unboosted regimens, the charts reflect the more cautious option.

© Liverpool Drug Interaction Group, University of Liverpool  
Pharmacology Research Labs, 1st Floor Block H, 70 Pembroke Place, LIVERPOOL, L69 3GF

We aim to ensure that information is accurate and consistent with current knowledge and practice. However, the University of Liverpool and its servants or agents shall not be responsible or in any way liable for the continued currency of information in this publication whether arising from negligence or otherwise howsoever or for any consequences arising therefrom. The University of Liverpool expressly exclude liability for errors, omissions or inaccuracies to the fullest extent permitted by law.

# Interactions with NRTIs

Charts revised June 2019. Full information available at [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

Please note that if a drug is not listed it cannot automatically be assumed it is safe to coadminister.

	ABC	ddl	FTC	F/TAF	F/TDF	3TC	d4T	TDF	ZDV
<b>Anticonvulsants</b>									
Carbamazepine	▲	◆	◆	●	◆	◆	◆	◆	▲
Clonazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Eslicarbazepine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ethosuximide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gabapentin	◆	■	◆	◆	◆	◆	◆	◆	◆
Lacosamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lamotrigine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levetiracetam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxcarbazepine	◆	◆	●	◆	◆	◆	◆	◆	◆
Phenobarbital (Phenobarbitone)	▲	◆	◆	◆	◆	◆	◆	◆	■
Phenytoin	▲	◆	●	◆	◆	◆	◆	◆	▲
Pregabalin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Primidone	▲	◆	●	◆	◆	◆	◆	◆	■
Tiagabine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Topiramate	◆	◆	◆	◆	■	◆	◆	■	◆
Valproate (Divalproex)	◆	◆	◆	◆	◆	◆	◆	◆	■
Vigabatrin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zonisamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Antidepressants</b>									
Agomelatine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Amitriptyline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bupropion	◆	◆	◆	◆	◆	◆	◆	◆	◆
Doxepin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Duloxetine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Escitalopram	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fluoxetine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fluvoxamine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Imipramine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lithium	◆	■	◆	■	◆	■	■	◆	◆
Maprotiline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mianserin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Milnacipran	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mirtazapine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nefazodone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nortriptyline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Paroxetine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Phenelzine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Reboxetine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sertraline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tranylcypromine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Trazodone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Trimipramine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Venlafaxine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vortioxetine	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Anti-diabetics</b>									
Acarbose	◆	◆	◆	◆	◆	◆	◆	◆	◆
Canagliflozin	◆	◆	◆	◆	■	◆	◆	■	◆
Dapagliflozin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dulaglutide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Empagliflozin	◆	◆	◆	◆	■	◆	◆	■	◆
Exanatide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Glibenclamide (Glyburide)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gliclazide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Glimepiride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Glipizide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Insulin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Linagliptin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Liraglutide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Metformin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nateglinide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pioglitazone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Repaglinide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rosiglitazone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Saxagliptin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sitagliptin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tolbutamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vildagliptin	◆	◆	◆	◆	◆	◆	◆	◆	◆

For personal use only. Not for distribution.

	ABC	ddl	FTC	F/TAF	F/TDF	3TC	d4T	TDF	ZDV
<b>Antifungals</b>									
Amphotericin B	◆	■	◆	◆	■	◆	■	■	■
Anidulafungin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Caspofungin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fluconazole	◆	◆	◆	▲	◆	◆	◆	◆	■
Flucytosine	◆	■	■	■	■	■	■	■	■
Griseofulvin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Itraconazole	◆	◆	◆	■	■	◆	◆	■	◆
Ketoconazole	◆	◆	◆	■	■	◆	◆	■	◆
Miconazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nystatin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Posaconazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Terbinafine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Voriconazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Antihistamines</b>									
Astemizole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cetirizine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chlorphenamine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diphenhydramine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fexofenadine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levocetirizine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Loratadine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Promethazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Terfenadine	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Antimigraine Agents</b>									
Almotriptan	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dihydroergotamine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ergotamine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rizatriptan	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sumatriptan	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Antiprotozoals</b>									
Amodiaquine	◆	◆	◆	◆	◆	◆	◆	◆	■
Artemisinin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Atovaquone	◆	◆	◆	◆	◆	◆	◆	◆	■
Benznidazole	◆	◆	◆	◆	◆	◆	◆	◆	■
Chloroquine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diloxanide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Eflornithine	◆	◆	▲	▲	▲	▲	■	▲	■
Halofantrine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lumefantrine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mefloquine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Meglumine antimoniate	◆	■	◆	◆	■	◆	■	■	◆
Melarsoprol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Miltefosine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nifurtimox	◆	◆	◆	◆	◆	◆	◆	◆	◆
Paromomycin	◆	■	◆	◆	◆	◆	■	■	◆
Pentamidine	◆	◆	◆	◆	■	◆	■	■	■
Piperazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Primaquine	◆	◆	◆	◆	◆	◆	◆	◆	■
Proguanil	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pyrimethamine	◆	■	▲	▲	▲	▲	◆	▲	▲
Quinine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sodium stibogluconate	◆	■	◆	◆	◆	◆	■	◆	■
Sulfadoxine	◆	■	▲	▲	▲	▲	◆	◆	▲
<b>Antipsychotics/Neuroleptics</b>									
Amisulpride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Aripiprazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Asenapine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chlorpromazine	◆	■	◆	◆	◆	◆	◆	◆	■
Clozapine	◆	◆	◆	◆	◆	◆	◆	◆	■
Fluphenazine	◆	◆	◆	◆	◆	◆	◆	◆	■
Haloperidol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Iloperidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levomepromazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Olanzapine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Paliperidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Perazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pericyazine	◆	◆	◆	◆	◆	◆	◆	◆	■
Perphenazine	◆	■	◆	◆	◆	◆	◆	◆	■
Pimozide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pipotiazine	◆	◆	◆	◆	◆	◆	◆	◆	■
Quetiapine	◆	◆	◆	◆	◆	◆	◆	◆	■
Risperidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sulpiride	◆	■	◆	◆	◆	◆	◆	◆	◆
Thioridazine	◆	◆	◆	◆	◆	◆	◆	◆	■
Tiapride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ziprasidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zolepine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zuclopenthixol	◆	◆	◆	◆	◆	◆	◆	◆	■

**Key to abbreviations**

ABC	Abacavir (Ziagen <sup>®</sup> )
ddl	Didanosine (Videx <sup>®</sup> , Videx-EC <sup>®</sup> )
FTC	Emtricitabine (Emtriva <sup>®</sup> )
F/TAF	Emtricitabine + Tenofovir alafenamide (Descovy <sup>®</sup> )
F/TDF	Emtricitabine + Tenofovir-DP (PrEP)
3TC	Lamivudine (EpiVir <sup>®</sup> )
d4T	Stavudine (Zerit <sup>®</sup> )
TDF	Tenofovir disoproxil fumarate (Viread <sup>®</sup> )
ZDV	Zidovudine (Retrovir <sup>®</sup> )

**Key to symbols**

●	These drugs should not be coadministered
■	Potential interaction – may require close monitoring, alteration of drug dosage or timing of administration
▲	Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment is unlikely to be required
◆	No clinically significant interaction expected

Where advice differs between countries, and/or between boosted and unboosted regimens, the charts reflect the more cautious option.

© Liverpool Drug Interaction Group, University of Liverpool  
Pharmacology Research Labs, 1st Floor Block H, 70 Pembroke Place, LIVERPOOL, L69 3GF

We aim to ensure that information is accurate and consistent with current knowledge and practice. However, the University of Liverpool and its servants or agents shall not be responsible or in any way liable for the continued currency of information in this publication whether arising from negligence or otherwise howsoever or for any consequences arising therefrom. The University of Liverpool expressly exclude liability for errors, omissions or inaccuracies to the fullest extent permitted by law.

# Interactions with NRTIs

Charts revised June 2019. Full information available at [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

Please note that if a drug is not listed it cannot automatically be assumed it is safe to coadminister.

	ABC	ddl	FTC	F/TAF	F/TDF	3TC	d4T	TDF	ZDV
<b>Antivirals</b>									
Aciclovir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Adefovir	◆	■	■	●	●	◆	■	●	◆
Amantadine	◆	◆	◆	◆	◆	▲	◆	◆	◆
Boceprevir	◆	◆	◆	●	◆	◆	◆	◆	■
Cidofovir	◆	■	◆	◆	■	◆	■	■	■
Daclatasvir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Elbasvir/Grazoprevir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Entecavir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Famciclovir	◆	◆	◆	◆	▲	◆	◆	▲	◆
Foscarnet	◆	◆	◆	◆	■	◆	◆	■	◆
Ganciclovir	◆	■	◆	◆	■	◆	◆	▲	◆
Glecaprevir/Pibrentasvir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ledipasvir/Sofosbuvir	◆	◆	◆	◆	■	◆	◆	■	◆
Ombitasvir/Paritaprevir/r	◆	◆	◆	■	◆	◆	◆	◆	◆
Ombitasvir/Paritaprevir/r + Dasabuvir	◆	◆	◆	■	◆	◆	◆	◆	◆
Oseltamivir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ribavirin	■	●	◆	◆	◆	■	■	◆	●
Rimantadine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Simeprevir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sofosbuvir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sofosbuvir/Velpatasvir	◆	◆	◆	◆	■	◆	◆	■	◆
Sofosbuvir/Velpatasvir/Voxilaprevir	◆	◆	◆	◆	■	◆	◆	■	◆
Telaprevir	◆	◆	◆	●	■	◆	■	■	◆
Telbivudine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tenofovir alafenamide (HBV)	◆	■	◆	●	●	◆	◆	●	◆
Valaciclovir	◆	◆	◆	◆	■	◆	◆	■	◆
Zanamivir	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Anxiolytics/Hypnotics/ Sedatives</b>									
Alprazolam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bromazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bupirone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chlordiazepoxide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clobazam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clorazepate	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Estazolam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flunitrazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flurazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Hydroxyzine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lorazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lormetazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Midazolam (oral)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Midazolam (parenteral)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Temazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Triazolam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zaleplon	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zolpidem	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zopiclone	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Beta Blockers</b>									
Atenolol	◆	◆	◆	◆	◆	▲	◆	◆	◆
Bisoprolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Carvedilol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Metoprolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nebivolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxprenolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pindolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Propranolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Timolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>Bronchodilators</b>									
Acclidinium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Aminophylline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Formoterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Glycopyrronium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Indacaterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ipratropium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Montelukast	◆	◆	◆	◆	◆	◆	◆	◆	◆
Olodaterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Roflumilast	◆	◆	◆	◆	◆	◆	◆	◆	◆
Salbutamol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Salmeterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Theophylline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tiotropium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Umeclidinium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vilanterol	◆	◆	◆	◆	◆	◆	◆	◆	◆

For personal use only. Not for distribution.

	ABC	ddl	FTC	F/TAF	F/TDF	3TC	d4T	TDF	ZDV
<b>Calcium Channel Blockers</b>									
Amlodipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diltiazem	◆	◆	◆	◆	◆	◆	◆	◆	◆
Felodipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nicardipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nifedipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nisoldipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nitrendipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Verapamil	◆	◆	◆	■	■	◆	◆	■	◆
<b>Cancer Therapies</b>									
Anastrozole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Asparaginase	◆	■	◆	◆	◆	◆	■	◆	◆
Bevacizumab	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bexarotene	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bleomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bortezomib	◆	■	◆	◆	◆	◆	■	◆	■
Capecitabine	▲	▲	▲	▲	▲	▲	▲	▲	■
Carboplatin	◆	■	◆	◆	◆	◆	◆	◆	■
Cetuximab	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chlorambucil	◆	◆	◆	◆	◆	◆	◆	◆	■
Cisplatin	◆	■	■	■	■	■	■	■	■
Cyclophosphamide	◆	◆	◆	◆	◆	◆	◆	◆	■
Cytarabine	◆	◆	◆	◆	◆	◆	◆	◆	■
Dacarbazine	◆	◆	◆	◆	■	◆	◆	■	■
Dactinomycin	◆	◆	◆	◆	◆	◆	■	◆	■
Dasatinib	◆	◆	◆	◆	◆	◆	◆	◆	■
Daunorubicin	◆	◆	◆	◆	◆	◆	◆	◆	■
Docetaxel	◆	■	◆	◆	◆	◆	■	◆	■
Doxorubicin	◆	◆	◆	◆	◆	◆	■	◆	■
Droloxifene	◆	◆	◆	◆	◆	◆	◆	◆	■
Epirubicin	◆	◆	◆	◆	◆	◆	◆	◆	■
Erlotinib	◆	◆	◆	◆	◆	◆	◆	◆	◆
Estramustine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Etoposide	◆	◆	◆	◆	◆	◆	◆	◆	■
Everolimus	◆	◆	◆	◆	◆	◆	◆	◆	◆
Exemestane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fludarabine	◆	■	◆	◆	◆	◆	■	◆	■
Fluorouracil	▲	▲	▲	▲	▲	▲	▲	▲	■
Formestane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gefitinib	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gemcitabine	◆	◆	◆	◆	◆	◆	◆	◆	■
Ifosfamide	◆	◆	◆	■	■	◆	◆	■	■
Imatinib	◆	■	◆	◆	◆	◆	■	◆	■
Irinotecan	◆	◆	◆	◆	◆	◆	◆	◆	■
Lapatinib	◆	◆	◆	◆	◆	◆	◆	◆	◆
Letrozole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mercaptopurine	◆	■	◆	◆	◆	◆	◆	◆	■
Mesna	◆	◆	◆	◆	▲	◆	◆	▲	◆
Methotrexate	◆	■	◆	◆	◆	■	■	■	■
Mitoxantrone	◆	◆	◆	◆	◆	◆	◆	◆	■
Nilotinib	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxaliplatin	◆	■	◆	◆	■	▲	■	■	■
Paclitaxel	◆	◆	◆	◆	◆	◆	◆	◆	■
Pazopanib	◆	◆	◆	◆	◆	◆	◆	◆	■
Procarbazine	◆	◆	◆	◆	◆	◆	◆	◆	■
Rituximab	◆	◆	◆	◆	◆	◆	◆	◆	■
Sorafenib	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sunitinib	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tamoxifen	◆	◆	◆	◆	◆	◆	◆	◆	◆
Temsirolimus	◆	◆	◆	◆	◆	◆	◆	◆	◆
Topotecan	◆	◆	◆	◆	◆	◆	◆	◆	■
Toremifene	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vinblastine	◆	■	◆	◆	◆	◆	■	◆	■
Vincristine	◆	■	◆	◆	◆	◆	■	◆	■
Vorinostat	◆	◆	◆	◆	◆	◆	◆	◆	■

**Key to abbreviations**

ABC	Abacavir (Ziagen <sup>®</sup> )
ddl	Didanosine (Videx <sup>®</sup> , Videx-EC <sup>®</sup> )
FTC	Emtricitabine (Emtriva <sup>®</sup> )
F/TAF	Emtricitabine + Tenofovir alafenamide (Descovy <sup>®</sup> )
F/TDF	Emtricitabine + Tenofovir-DF (PrEP)
3TC	Lamivudine (Epi <sup>®</sup> )
d4T	Stavudine (Zerit <sup>®</sup> )
TDF	Tenofovir disoproxil fumarate (Viread <sup>®</sup> )
ZDV	Zidovudine (Retrovir <sup>®</sup> )

**Key to symbols**

●	These drugs should not be coadministered
■	Potential interaction – may require close monitoring, alteration of drug dosage or timing of administration
▲	Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment is unlikely to be required
◆	No clinically significant interaction expected

Where advice differs between countries, and/or between boosted and unboosted regimens, the charts reflect the more cautious option.

© Liverpool Drug Interaction Group, University of Liverpool  
Pharmacology Research Labs, 1st Floor Block H, 70 Pembroke Place, LIVERPOOL, L69 3GF

We aim to ensure that information is accurate and consistent with current knowledge and practice. However, the University of Liverpool and its servants or agents shall not be responsible or in any way liable for the continued currency of information in this publication whether arising from negligence or otherwise howsoever or for any consequences arising therefrom. The University of Liverpool expressly exclude liability for errors, omissions or inaccuracies to the fullest extent permitted by law.

# Interactions with NRTIs

Charts revised June 2019. Full information available at [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

Please note that if a drug is not listed it cannot automatically be assumed it is safe to coadminister.

	ABC	ddl	FTC	F/TAF	F/TDF	3TC	d4T	TDF	ZDV
<b>Contraceptives/HRT</b>									
Desogestrel (COC)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Desogestrel (POP)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Drospirenone (COC)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Drospirenone (HRT)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Dydrogesterone (HRT)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ethinylestradiol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Etonogestrel (implant)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Etonogestrel (vaginal ring)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Gestodene (COC)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Levonorgestrel (COC)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Levonorgestrel (emergency contraception)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Levonorgestrel (HRT)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Levonorgestrel (implant)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Levonorgestrel (IUD)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Levonorgestrel (POP)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Medroxyprogesterone (depot injection)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Medroxyprogesterone (oral)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Norelgestromin (patch)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Norethisterone [Norethindrone] (COC)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Norethisterone [Norethindrone] (HRT)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Norethisterone [Norethindrone] (IM depot)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Norethisterone [Norethindrone] (POP)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Norgestimate (COC)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Norgestrel (COC)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Norgestrel (HRT)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ulipristal	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Erectile Dysfunctional Agents</b>									
Avanafil	♦	♦	♦	♦	♦	♦	♦	♦	♦
Sildenafil (Erectile Dysfunction)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Tadalafil (Erectile Dysfunction)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Vardenafil	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Gastrointestinal Agents</b>									
Alosetron	♦	♦	♦	♦	♦	♦	♦	♦	♦
Antacids	♦	♦	♦	♦	♦	♦	♦	♦	♦
Bisacodyl	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cimetidine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cisapride	♦	♦	♦	♦	♦	♦	♦	♦	♦
Esomeprazole	♦	♦	♦	♦	♦	♦	♦	♦	♦
Famotidine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Lactulose	♦	♦	♦	♦	♦	♦	♦	♦	♦
Lansoprazole	♦	♦	♦	♦	♦	♦	♦	♦	♦
Loperamide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Mesalazine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Omeprazole	♦	♦	♦	♦	♦	♦	♦	♦	♦
Pantoprazole	♦	♦	♦	♦	♦	♦	♦	♦	♦
Prucalopride	♦	♦	♦	♦	♦	♦	♦	♦	♦
Rabeprazole	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ranitidine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Senna	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Gastrointestinal Agents (anti-emetics)</b>									
Aprepitant	♦	♦	♦	♦	♦	♦	♦	♦	♦
Dolasetron	♦	♦	♦	♦	♦	♦	♦	♦	♦
Domperidone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Dronabinol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Granisetron	♦	♦	♦	♦	♦	♦	♦	♦	♦
Metoclopramide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ondansetron	♦	♦	♦	♦	♦	♦	♦	♦	♦
Prochlorperazine	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Herbals/Supplements/Vitamins</b>									
African potato	♦	♦	♦	♦	♦	♦	♦	♦	♦
Aloe vera	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ascorbic Acid (vitamin C)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Calcium supplements	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cat's claw (Uncaria tomentosa)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Colecalciferol (vitamin D3)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cubeb pepper (Piper cubeba)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cyanocobalamin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Echinacea	♦	♦	♦	♦	♦	♦	♦	♦	♦
Eucalyptus globulus	♦	♦	♦	♦	♦	♦	♦	♦	♦
Folic acid (alone)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Folic acid (in multivitamins)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Garlic	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ginger (Zingiber officinale)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ginkgo biloba	♦	♦	♦	♦	♦	♦	♦	♦	♦
Goldenseal root (Hydrastis canadensis)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Grapefruit juice	♦	♦	♦	♦	♦	♦	♦	♦	♦

For personal use only. Not for distribution.

	ABC	ddl	FTC	F/TAF	F/TDF	3TC	d4T	TDF	ZDV
<b>Herbals/Supplements/Vitamins (continued)</b>									
Hops (Humulus lupulus)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Inula racemosa	♦	♦	♦	♦	♦	♦	♦	♦	♦
Iodine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Iron supplements	♦	♦	♦	♦	♦	♦	♦	♦	♦
Liquorice (Glycyrrhiza glabra)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Magnesium supplements	♦	♦	♦	♦	♦	♦	♦	♦	♦
Malabar nut tree	♦	♦	♦	♦	♦	♦	♦	♦	♦
Menthol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Milk thistle (silymarin)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Multivitamins	♦	♦	♦	♦	♦	♦	♦	♦	♦
Nicotinamide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Phytomenadione (vitamin K)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Pyridoxine (vitamin B6)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Quercetin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Retinol (vitamin A)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Riboflavin (vitamin B2)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Saw palmetto (Serenoa repens)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Seville orange juice	♦	♦	♦	♦	♦	♦	♦	♦	♦
St John's Wort	♦	♦	♦	♦	♦	♦	♦	♦	♦
Thiamine (vitamin B1)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Turmeric (Curcuma longa)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Valerian	♦	♦	♦	♦	♦	♦	♦	♦	♦
Vitamin E	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Hypertension / Heart Failure Agents</b>									
Aliskiren	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ambrisentan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Amiloride	♦	♦	♦	♦	♦	♦	♦	♦	♦
Bendroflumethiazide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Bosentan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Candesartan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Captopril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Chlorthalidone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cilazapril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Clonidine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Digoxin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Dopamine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Doxazosin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Enalapril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Eplerenone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Epoprostenol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Eprosartan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Fosinopril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Furosemide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Hydralazine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Hydrochlorothiazide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Iloprost	♦	♦	♦	♦	♦	♦	♦	♦	♦
Indapamide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Irbesartan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Isosorbide dinitrate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ivabradine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Labetalol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Lacidipine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Lercanidipine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Lisinopril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Losartan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Macitentan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Methyldopa	♦	♦	♦	♦	♦	♦	♦	♦	♦
Metolazone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Olmesartan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Perindopril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Prazosin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Quinapril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ramipril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ranolazine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Riociguat	♦	♦	♦	♦	♦	♦	♦	♦	♦
Sacubitril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Selexipag	♦	♦	♦	♦	♦	♦	♦	♦	♦
Sildenafil (PAH)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Sodium nitroprusside	♦	♦	♦	♦	♦	♦	♦	♦	♦
Spiroolactone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Tadalafil (PAH)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Telmisartan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Terazosin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Torasemide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Trandolapril	♦	♦	♦	♦	♦	♦	♦	♦	♦
Treprostinil	♦	♦	♦	♦	♦	♦	♦	♦	♦
Valsartan	♦	♦	♦	♦	♦	♦	♦	♦	♦
Xipamide	♦	♦	♦	♦	♦	♦	♦	♦	♦

**Key to abbreviations**

ABC	Abacavir (Ziagen <sup>®</sup> )
ddl	Didanosine (Videx <sup>®</sup> , Videx-EC <sup>®</sup> )
FTC	Emtricitabine (Emtriva <sup>®</sup> )
F/TAF	Emtricitabine + Tenofovir alafenamide (Descovy <sup>®</sup> )
F/TDF	Emtricitabine + Tenofovir-DF (PrEP)
3TC	Lamivudine (EpiVir <sup>®</sup> )
d4T	Stavudine (Zerit <sup>®</sup> )
TDF	Tenofovir disoproxil fumarate (Viread <sup>®</sup> )
ZDV	Zidovudine (Retrovir <sup>®</sup> )

**Key to symbols**

●	These drugs should not be coadministered
■	Potential interaction – may require close monitoring, alteration of drug dosage or timing of administration
▲	Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment is unlikely to be required
♦	No clinically significant interaction expected

Where advice differs between countries, and/or between boosted and unboosted regimens, the charts reflect the more cautious option.

© Liverpool Drug Interaction Group, University of Liverpool  
Pharmacology Research Labs, 1st Floor Block H, 70 Pembroke Place, LIVERPOOL, L69 3GF

We aim to ensure that information is accurate and consistent with current knowledge and practice. However, the University of Liverpool and its servants or agents shall not be responsible or in any way liable for the continued currency of information in this publication whether arising from negligence or otherwise however or for any consequences arising therefrom. The University of Liverpool expressly exclude liability for errors, omissions or inaccuracies to the fullest extent permitted by law.

# Interactions with NRTIs

Charts revised June 2019. Full information available at [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

Please note that if a drug is not listed it cannot automatically be assumed it is safe to coadminister.

	ABC	ddl	FTC	F/TAF	F/TFD	3TC	d4T	TDF	ZDV
<b>Illicit/Recreational</b>									
Alcohol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Amphetamine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cannabis	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cocaine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ecstasy (MDMA)	♦	♦	♦	♦	♦	♦	♦	♦	♦
GHB (Gamma-hydroxybutyrate)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Heroin	♦	♦	♦	♦	♦	♦	♦	♦	♦
LSD (Lysergic acid diethylamide)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Mephedrone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Methamphetamine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Phencyclidine (PCP)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Poppers (Amyl nitrate)	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Immune Modulators</b>									
Hydroxyurea (Hydroxycarbamide)	■	●	■	■	■	■	●	■	■
Interferon alpha	■	■	■	■	■	■	■	■	■
Interleukin 2 (Aldesleukin)	■	■	■	■	■	■	■	■	■
Peginterferon alfa-2a	■	●	■	■	■	■	■	■	●
Peginterferon alfa-2b	■	●	■	■	■	■	■	■	●
<b>Immunosuppressants</b>									
Adalimumab	♦	♦	♦	♦	♦	♦	♦	♦	♦
Anti-thymocyte globulin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Azathioprine	♦	■	♦	♦	♦	♦	♦	♦	▲
Basiliximab	♦	♦	♦	♦	♦	♦	♦	♦	♦
Belatacept	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ciclosporin	♦	♦	■	■	■	♦	♦	■	♦
Mycophenolate	▲	♦	♦	♦	♦	♦	♦	▲	♦
Sirolimus	♦	♦	♦	♦	▲	♦	♦	▲	♦
Tacrolimus	♦	♦	♦	♦	▲	♦	♦	▲	♦
<b>Lipid Lowering Agents</b>									
Atorvastatin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Bezafibrate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Clofibrate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Evolocumab	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ezetimibe	♦	♦	♦	♦	♦	♦	♦	♦	♦
Fenofibrate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Fish oils	♦	♦	♦	♦	♦	♦	♦	♦	♦
Fluvastatin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Gemfibrozil	♦	♦	♦	♦	♦	♦	♦	♦	♦
Lovastatin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Pitavastatin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Pravastatin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Rosuvastatin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Simvastatin	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Overactive Bladder Agents</b>									
Darifenacin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Fesoterodine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Mirabegron	♦	♦	♦	♦	♦	♦	♦	♦	♦
Oxybutynin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Solifenacin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Tolterodine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Trospium	♦	♦	♦	♦	♦	▲	♦	♦	♦
<b>Oxytocics</b>									
Ergometrine (Ergonovine)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Mifepristone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Misoprostol	♦	■	♦	♦	♦	♦	♦	♦	♦
Oxytocin	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Parkinsonism Agents</b>									
Apomorphine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Benserazide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Carbidopa	♦	♦	♦	♦	♦	♦	♦	♦	♦
Levodopa	♦	♦	♦	♦	♦	♦	♦	♦	♦
Pramipexole	♦	♦	♦	♦	♦	▲	♦	♦	♦
Rasagiline	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ropinirole	♦	♦	♦	♦	♦	♦	♦	♦	♦
<b>Steroids</b>									
Beclometasone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Betamethasone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Budesonide	♦	♦	♦	♦	♦	♦	♦	♦	♦
Clobetasol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Dexamethasone	♦	■	♦	♦	♦	♦	♦	♦	♦
Fludrocortisone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Fluocinolone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Fluticasone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Hydrocortisone (oral)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Hydrocortisone (topical)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Megestrol acetate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Methylprednisolone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Mometasone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Nandrolone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Oxandrolone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Prednisolone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Prednisone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Stanozolol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Testosterone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Triamcinolone	♦	♦	♦	♦	♦	♦	♦	♦	♦

For personal use only. Not for distribution.

	ABC	ddl	FTC	F/TAF	F/TFD	3TC	d4T	TDF	ZDV
<b>Other</b>									
Acamprosate	♦	▲	▲	▲	♦	♦	▲	♦	▲
Acetazolamide	♦	♦	♦	♦	■	♦	♦	■	■
Acitretin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Adrenaline (Epinephrine)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Alendronic Acid	♦	♦	♦	♦	♦	♦	♦	♦	♦
Alfuzosin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Allopurinol	♦	●	♦	♦	♦	♦	♦	♦	♦
Atropine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Baclofen	♦	♦	♦	♦	♦	♦	♦	♦	♦
Betahistine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Biperiden	♦	♦	♦	♦	♦	♦	♦	♦	♦
Caffeine citrate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Calcium folinate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cannabidiol (CBD)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Carbimazole	♦	♦	♦	♦	♦	♦	♦	♦	■
Clomifene	♦	♦	♦	♦	♦	♦	♦	♦	♦
Colchicine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cyproterone acetate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Denosumab	♦	♦	♦	♦	♦	♦	♦	♦	♦
Disulfiram	▲	♦	♦	♦	♦	♦	♦	♦	♦
Dutasteride	♦	♦	♦	♦	♦	♦	♦	♦	♦
Finasteride	♦	♦	♦	♦	♦	♦	♦	♦	♦
Flibanserin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Glyceril trinitrate (Nitroglycerin)	♦	♦	♦	♦	♦	♦	♦	♦	♦
Goserelin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Ibandronic acid	♦	♦	♦	♦	♦	♦	♦	♦	♦
Isotretinoin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Leuprorelin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Levothyroxine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Mannitol	♦	♦	♦	♦	♦	♦	♦	♦	♦
Methylphenidate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Modafinil	♦	♦	♦	♦	♦	♦	♦	♦	♦
Naftidrofuryl	♦	♦	♦	♦	♦	♦	♦	♦	♦
Naloxone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Naltrexone	♦	♦	♦	♦	♦	♦	♦	♦	♦
Neostigmine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Nicorandil	♦	♦	♦	♦	♦	♦	♦	♦	♦
Orlistat	▲	▲	▲	▲	▲	▲	▲	▲	▲
Penicillamine	♦	■	♦	♦	■	♦	■	■	■
Pentoxifylline	♦	♦	♦	♦	♦	♦	♦	♦	♦
Pilocarpine	♦	♦	♦	♦	♦	♦	♦	♦	♦
Potassium	♦	♦	♦	♦	♦	♦	♦	♦	♦
Probenecid	▲	■	♦	♦	■	▲	■	■	■
Propylthiouracil	♦	♦	♦	♦	♦	♦	♦	♦	■
Protamine sulphate	♦	♦	♦	♦	♦	♦	♦	♦	♦
Pyridostigmine	♦	♦	▲	▲	▲	▲	■	▲	♦
Strontium ranelate	▲	▲	▲	▲	▲	▲	▲	▲	▲
Sulfasalazine	♦	♦	♦	♦	♦	♦	♦	♦	■
Tamsulosin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Thalidomide	♦	■	♦	♦	♦	♦	■	♦	♦
Tranexamic acid	♦	♦	♦	♦	♦	♦	♦	♦	♦
Triptorelin	♦	♦	♦	♦	♦	♦	♦	♦	♦
Varenicline	♦	♦	♦	♦	♦	♦	♦	♦	♦
Zoledronic acid	♦	♦	♦	♦	■	♦	♦	■	♦

**Key to abbreviations**

ABC	Abacavir (Ziagen <sup>®</sup> )
ddl	Didanosine (Videx <sup>®</sup> , Videx-EC <sup>®</sup> )
FTC	Emtricitabine (Emtriva <sup>®</sup> )
F/TAF	Emtricitabine + Tenofovir alafenamide (Descovy <sup>®</sup> )
F/TFD	Emtricitabine + Tenofovir-DF (PrEP)
3TC	Lamivudine (EpiVir <sup>®</sup> )
d4T	Stavudine (Zerit <sup>®</sup> )
TDF	Tenofovir disoproxil fumarate (Viread <sup>®</sup> )
ZDV	Zidovudine (Retrovir <sup>®</sup> )

**Key to symbols**

●	These drugs should not be coadministered
■	Potential interaction – may require close monitoring, alteration of drug dosage or timing of administration
▲	Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment is unlikely to be required
♦	No clinically significant interaction expected

Where advice differs between countries, and/or between boosted and unboosted regimens, the charts reflect the more cautious option.

© Liverpool Drug Interaction Group, University of Liverpool  
Pharmacology Research Labs, 1st Floor Block H, 70 Pembroke Place, LIVERPOOL, L69 3GF

We aim to ensure that information is accurate and consistent with current knowledge and practice. However, the University of Liverpool and its servants or agents shall not be responsible or in any way liable for the continued currency of information in this publication whether arising from negligence or otherwise howsoever or for any consequences arising therefrom. The University of Liverpool expressly exclude liability for errors, omissions or inaccuracies to the fullest extent permitted by law.