



Drug Interactions with HIV anti-retroviral treatment

The potential for drug interactions between anti-retroviral therapy and other co-prescribed medications, over the counter medicines or herbal/dietary products can be high in many therapeutic areas and treatment classes.

The University of Liverpool has oversight of a resource specifically concerned with drug interactions with HIV anti-retroviral therapy.

When prescribing for a patient living with HIV please use this valuable resource to check for potential drug-drug interactions:

www.hiv-druginteractions.org

All correspondence from the HIV clinic will contain the 'header notice' below. This is intended to highlight potentially dangerous drug interactions with commonly prescribed medication:

Correspondence header

Some HIV medications have dangerous interactions with other prescribed, over the counter or herbal medicines, (such as St. John's wort). **DO NOT PRESCRIBE Simvastatin or injected Triamcinolone, or any inhaled/intranasal/topical corticosteroid** (except Beclometasone) with **Ritonavir, Kaletra or Cobicistat** (contained in Stribild, Genvoya, Rezolsta, Evotaz, Symtuza). **DO NOT PRESCRIBE** proton pump inhibitors or H2 antagonists with **Atazanavir, Rilpivirine, Odefsey or Eviplera**. More information can be found at www.hiv-druginteractions.org. To discuss with the HIV specialist pharmacist please e-mail: dave.moore4@nhs.net or kin.ing@nhs.net or phone 01903 285222 ext 83750 or contact the clinic.

The table below summarises medications that should **not** be co-prescribed in patients taking particular anti-retrovirals (ARVs)

Table 1: **DO NOT Co-prescribe**

Antiretroviral	Contraindicated co-prescribed medicine 'Do Not prescribe'
All protease inhibitors (e.g. atazanavir, darunavir, fosamprenavir) and regimens containing cobicistat or ritonavir (e.g. Biktarvy, Genvoya, Stribild, Evotaz, Rezolsta, Symtuza)	Corticosteroids, particularly; Budesonide, Fluticasone, Mometasone and Triamcinolone (including inhaled, topical, intranasal and I/A injection) Beclometasone considered safe – consult Liverpool website for latest advice and data
	Simvastatin, Lovastatin Atorvastatin and pravastatin considered safer options – consult Liverpool website or contact clinic for advice
	Some Herbal remedies, particularly St. John's Wort
Rilpivirine, Eviplera, Odefsey, Atazanavir	Proton Pump Inhibitors
Rilpivirine, Eviplera, Odefsey	Dexamethasone

Listed below are medicines that have clinically significant drug interactions with a number of ARVs that would require dose alteration or use of alternate agents. The Liverpool website or clinic should be consulted for latest advice and data. (Please note this is not an exhaustive list).

Table 2: medicines with clinically significant drug interactions with ARVs

Co-prescribed medicine with clinically significant interaction requiring prescribing intervention such as dose change	
Medicine class	Specific drugs of note:
Alpha-adrenoceptor blockers	Alfuzosin
Analgesics	Methadone Dextropropoxyphene Aspirin NSAIDs
Anti-arrhythmics	Amiodarone Dofetilide Flecainide
Antimicrobials/anti-tuberculosis drugs	Rifampicin Rifabutin Rifapentin
Anti-diabetic medication	Metformin Repaglinide
Anti-coagulants and anti-platelets	NOACs, DOACs such as apixaban, rivaroxaban Clopidogrel Ticagrelor
Anti-epileptics and mood stabilizers	Carbamazepine Phenytoin Phenobarbitone Primadone Topiramate Lithium
Anti-fungals	Flucytosine Itraconazole Fluconazole
Anti-histamines	Astemizole Terbinafine

Anti-hypertensives	ARBs and ACE inhibitors β-blockers, atenolol Calcium channel blockers, Lercanidipine Doxazosin Indapamide
Anti-psychotics	Pimozide Quetiapine Ziprasidone
Anti-virals	Hepatitis C treatments
Anxiolytics and Hypnotics + narcolepsy drugs	Midazolam (oral) Triazolam Modafinil
Cancer treatments	Use Liverpool website for specific drug-drug interactions
Contraceptives and HRT	COCs POP Implant
Corticosteroids (also see table 1.)	Budesonide Fluticasone Mometasone Triamcinolone
Erectile dysfunction drugs	Avanafil Sildenafil Tadalafil Vardenafil
Gastro-Intestinal agents	Proton Pump inhibitors (table 1) H ₂ antagonists (with rilpivirine or atazanavir) Antacids (with rilpivirine and Integrase inhibitors e.g. dolutegravir) Cisapride Domperidone
Herbal and Dietary products	St. John's wort (table 1,) Iron replacement(with integrase inhibitors) Multi-vitamins and minerals (with integrase inhibitors)

Immune modulators	Hydroxyurea Peg-interferon
Immuno-suppressants	Ciclosporin Everolimus Mycophenolate Sirolimus Tacrolimus
Lipid-lowering agents	Lovastatin Simvastatin (table 1.)

Listed below are the therapeutic classes of medicine with the highest probability of drug interactions with ARVs. When prescribing within these classes of medicine it would be good practice to consult the Liverpool website for latest data or to contact the clinic for advice.

- Analgesics, particularly NSAIDs and opioids
- Anaesthetics and muscle relaxants
- Antacids particularly containing Aluminium, Magnesium or calcium with integrase inhibitors, rilpivirine
- Anticoagulants and antiplatelets
- Antidepressants
- Anti-diabetic drugs
- Anti-emetics
- Anti-epileptics and mood stabilizers
- Anti-fungals
- Anti-histamines
- Anti-hypertensives
- Anti-malarials
- Antipsychotics
- Anti-tuberculosis drugs, particularly rifampicin and rifabutin
- Anti-virals
- Anxiolytics and hypnotics
- Bronchodilators for asthma and COPD
- Cancer treatment
- Contraceptives and HRT
- Corticosteroids (see table 1)
- Erectile dysfunction drugs
- Immuno-suppressants
- Lipid lowering drugs, particularly statins; simvastatin (see table 1)
- Narcolepsy drugs
- Overactive bladder agents
- Oxytocics
- Pulmonary anti-hypertensives



- Recreational drugs and drugs used in 'Chem-sex'
- Vitamins and Iron replacement products – chelation interaction with Integrase inhibitors

For latest data and advice on potential drug interactions with prescribing in patients living with HIV check the drug interaction checker www.hiv-druginteractions.org or contact the specialist HIV Pharmacists 01903 285222 ext: 83750 or contact the local HIV clinic.