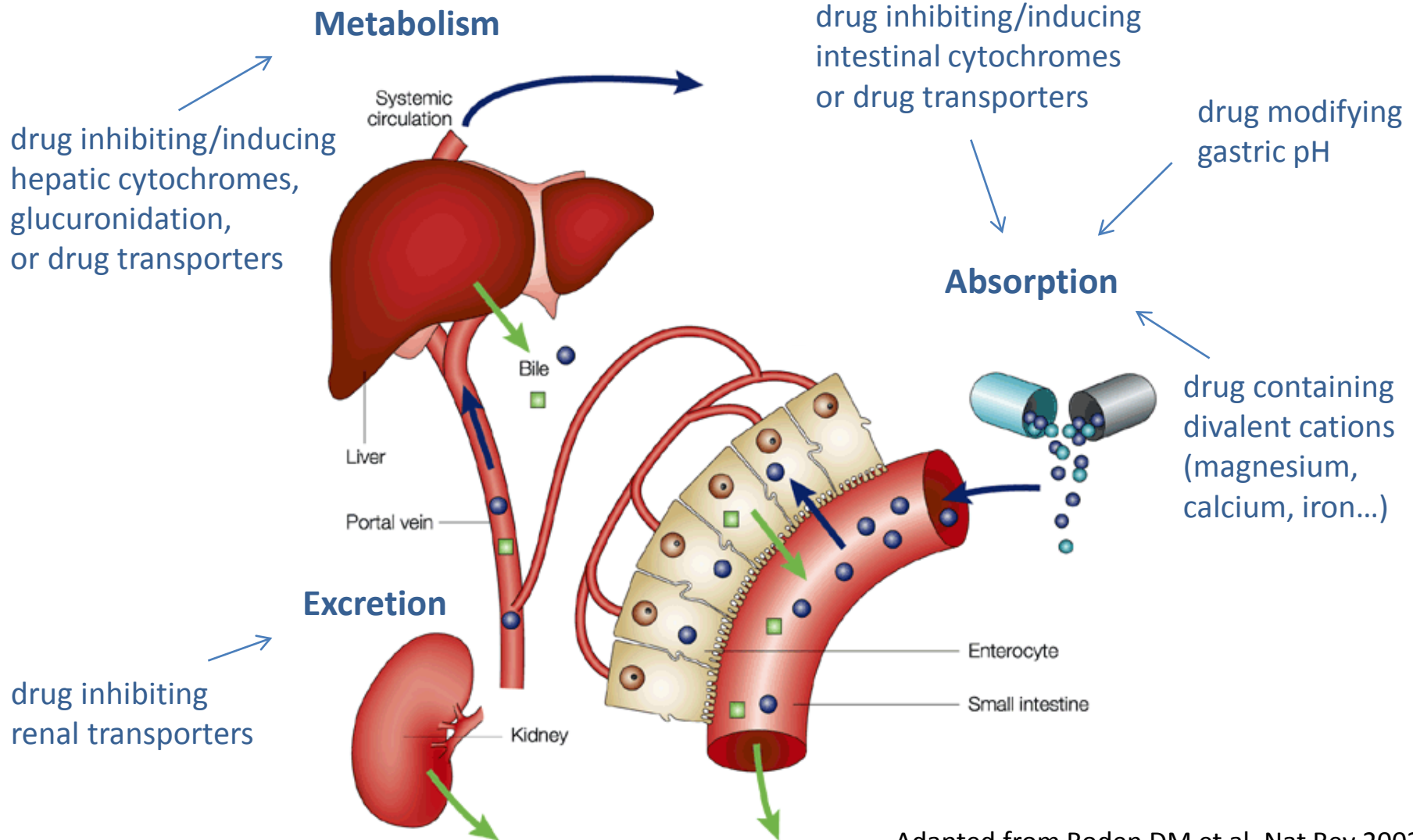


Mechanisms of drug-drug interactions at the level of absorption, metabolism and excretion



Common drug-drug interactions with antiretroviral drugs

Drug-drug interactions with HIV therapy can occur with prescribed drugs, over-the counter drugs, herbal therapies and social/recreational drugs (see examples below). Always ask your HIV specialist, general practitioner or pharmacist before taking any new medicine.

Effect	HIV drugs	Concomitant drugs/disease
Absorption: gastric pH	<ul style="list-style-type: none"> • atazanavir • rilpivirine 	<ul style="list-style-type: none"> • antacids • H2-receptor antagonist (cimetidine, famotidine, ranitidine) • proton pump inhibitors (lansoprazole, omeprazole, pantoprazole)
Absorption: chelation	<ul style="list-style-type: none"> • dolutegravir • elvitegravir • raltegravir 	<ul style="list-style-type: none"> • antacids • calcium, iron, magnesium supplements
Metabolism: HIV drug <u>impacts</u> the concomitant drug	<ul style="list-style-type: none"> • protease inhibitors • elvitegravir/cobi • efavirenz • etravirine • nevirapine 	<ul style="list-style-type: none"> • anti-infectives: hepatitis C drugs, tuberculosis drugs, antifungals (rifampicin, rifabutin, itraconazole, simeprevir, daclatasvir) • cancer drugs • cardiovascular agents: statins, calcium channel blockers, beta blockers (diltiazem, amiodarone, metoprolol, atorvastatin) • corticosteroids (oral, inhaled topical, injection), hormonal contraceptives (desogestrel, fluticasone, dexamethasone) • psychotropics: benzodiazepines, antidepressants, antipsychotics (alprazolam, midazolam, escitalopram, paroxetine, quetiapine) • recreational drugs/narcotics (ketamine, heroin, morphine) • transplant drugs: (ciclosporin, tacrolimus) • other: ergot derivatives (ergotamine)
Metabolism: HIV drug <u>is impacted</u> by the concomitant drug	<ul style="list-style-type: none"> • protease inhibitors • elvitegravir/cobi • efavirenz • etravirine • nevirapine • rilpivirine • maraviroc 	<ul style="list-style-type: none"> • anti-infectives: hepatitis C drugs, tuberculosis drugs, antifungals (rifampicin, rifabutin, itraconazole, telaprevir) • anticonvulsants (carbamazepine, phenytoin) • other: St John's wort, activated charcoal
Nephrotoxicity	<ul style="list-style-type: none"> • tenofovir 	<ul style="list-style-type: none"> • NSAID (diclofenac) • renal impairment

Examples of medications (the list is not exhaustive)

For detailed informations, go to the Liverpool drug-drug interactions website: www.hiv-druginteractions.org, EACS guidelines : www.eacsociety.org

Possibility to download the free Liverpool drug-drug interactions app (HIV i-chart) on mobile devices