

**RECREATIONAL DRUGS:**

**AMYL NITRATE, AMPHETAMINES, CANNABIS, COCAINE/CRACK, GHB, HALLUCINOGENS, KETAMINE, HEROIN, NALOXONE**

	INSTIs		NNRTIs		PIs
	<ul style="list-style-type: none"> <li>• BICTEGRAVIR (<i>Biktarvy</i>)</li> <li>• DOLUTEGRAVIR (<i>Tivicay, Triumeq, Juluca</i>)</li> <li>• RALTEGRAVIR (<i>Isentress</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• ELVITEGRAVIR/COBICISTAT (<i>Stribild, Genvoya</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• DORAVIRINE (<i>Pifeltro, Delstrigo</i>)</li> <li>• RILPIVIRINE (<i>Edurant, Complera, Odefsey, Juluca</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• EFAVIRENZ (<i>Sustiva, Atripla</i>)</li> <li>• ETRAVIRINE (<i>Intelence</i>)</li> <li>• NEVIRAPINE (<i>Viramune</i>)</li> </ul>	Boosted with ritonavir (Norvir) or cobicistat <ul style="list-style-type: none"> <li>• ATAZANAVIR (<i>Reyataz, Evotaz</i>)</li> <li>• DARUNAVIR (<i>Prezista, Prezcobix, Symtuza</i>)</li> <li>• LOPINAVIR (<i>Kaletra</i>)</li> </ul>

**AMYL NITRATE**

- Poppers, ames

**AMPHETAMINES**

- MDMA/ecstasy, crystal, molly

Potential for ↑ recreational drug

Potential for ↑ recreational drug

**CANNABIS**

- Marijuana, weed

**COCAINE**

- crack, base,

Potential for ↑ recreational drug

Potential QT prolongation (rilpivirine)

Potential for ↑ levels of hepatotoxic metabolite

Potential for ↑ recreational drug

**GAMMA-HYDROXYBUTYRATE**

- GHB, date rape drug, Geeb, liquid X

Potential for ↑ recreational drug

Potential for ↑ recreational drug

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### HALLUCINOGENS

<ul style="list-style-type: none"> <li>• LSD, acid</li> <li>• PCP, angel dust</li> </ul>		Potential for ↑ recreational drug		Potential for ↓ recreational drug	Potential for ↑ recreational drug
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### KETAMINE

<ul style="list-style-type: none"> <li>• Special K, vitamin K, KitKat</li> </ul>		Potential for ↑ recreational drug		Potential for ↓ recreational drug	Potential for ↑ recreational drug
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### HEROIN

<ul style="list-style-type: none"> <li>• Smack, H, tar, junk</li> </ul>		Potential for ↑ recreational drug		Potential for ↓ morphine (converted from heroin) with efavirenz	Potential for ↑ recreational drug
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### NALOXONE

<ul style="list-style-type: none"> <li>• Narcan</li> </ul>					Ritonavir-boosted PIs: potential for ↓ naloxone
					Cobicistat-boosted PIs

Legend:



No dose adjustment required.



Use combination with caution. Adjustment in drug dose or frequency or additional/more frequent monitoring may be required. May wish to consult with a pharmacist knowledgeable in HIV drug interactions.



Contraindicated/avoid combination.

## Mechanism of Drug Interactions, Management and Monitoring

Class	Mechanism of Interaction	Main Interacting ARVs	Management	Monitoring
Stimulants: Cocaine, amphetamines  GHB	Inhibition of CYP3A4(cocaine) and CYP2D6 (amphetamines, GHB?) leading to increased levels of stimulant	Protease Inhibitors (PI) (with ritonavir or cobicistat) & Elvitegravir/cobicistat	Warn patient of potential for unpredictable increased levels of the recreational substance and provide harm reduction advice	Toxicity: Dehydration, dry mouth, teeth grinding, tense jaw, tachycardia. GHB: seizures, bradycardia, loss or consciousness
Hallucinogens: LSD, PCP (angel dust)	Mechanism unclear but potential for inhibition or induction of drug metabolism	PIs & elvitegravir/cobicistat may increase hallucinogen concentrations Enzyme inducing NNRTIs (efavirenz, etravirine, nevirapine) may decrease levels	Warn patient of unpredictable increased levels of hallucinogen and provide harm reduction advice	Toxicity: Hallucinations, psychosis, flashbacks, seizures, hypertension.
Ketamine	Mechanism unclear but potential for inhibition or induction of drug metabolism	PIs & elvitegravir/cobicistat may increase ketamine Enzyme inducing NNRTIs (efavirenz, etravirine, nevirapine) may decrease levels	Warn patient of unpredictable increased levels and provide harm reduction advice	Toxicity: Nausea, vomiting, SOB, loss of coordination, cognitive decline
Heroin	Converted to morphine, which is glucuronidated (UGT2B7>UGT1A1) and a substrate of Pgp	PIs & elvitegravir/cobicistat may increase morphine Efavirenz may induce UGT and decrease morphine	Warn patient of unpredictable increased levels and provide harm reduction advice	Toxicity: decreased level of consciousness, miosis, respiratory depression. Acute symptoms may be reversed with naloxone.
Naloxone	Substrate of UGT2B7	Ritonavir-boosted PIs may induce UGT and decrease naloxone	Potential for decreased duration of naloxone efficacy	Monitor for duration of naloxone efficacy.

A MANAGEMENT TOOL FOR **HIV** DRUG-DRUG INTERACTIONS

Printed with the assistance of an unrestricted educational grant from:



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