

# Interactions with HCC Therapies

Charts revised October 2024. Full information available at [www.hep-druginteractions.org](http://www.hep-druginteractions.org)

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

Atezo + Bez, Atezolizumab + bevacizumab; LEN, lenvatinib; PEM, pembrolizumab; REG, regorafenib; SOR, sorafenib.

	Atezo + Bez	LEN	PEM	REG	SOR
<b>Anaesthetics and Muscle Relaxants</b>					
Bupivacaine	◆	◆	◆	▲	▲
Cisatracurium	◆	◆	◆	◆	◆
Desflurane	◆	◆	◆	◆	◆
Dexmedetomidine	◆	■	◆	◆	■
Ephedrine	◆	▲	◆	▲	◆
Etidocaine	◆	◆	◆	◆	◆
Halothane	◆	◆	◆	◆	◆
Isoflurane	◆	■	◆	◆	■
Ketamine	◆	◆	◆	◆	◆
Nitrous oxide	◆	◆	◆	◆	◆
Propofol	◆	■	◆	■	■
Remifentanyl	◆	◆	◆	◆	◆
Rocuronium	◆	◆	◆	◆	▲
Sevoflurane	◆	■	◆	◆	■
Tetracaine	◆	◆	◆	◆	◆
Thiopental	◆	◆	◆	◆	◆
Tizanidine	◆	▲	◆	◆	▲
<b>Analgesics</b>					
Acetofenac	◆	◆	◆	◆	◆
Alfentanil	◆	◆	◆	◆	◆
Aspirin	◆	◆	◆	◆	◆
Buprenorphine	◆	◆	◆	◆	◆
Celecoxib	◆	◆	◆	◆	◆
Codeine	◆	◆	◆	◆	◆
Dexketoprofen	◆	◆	◆	◆	◆
Dextropropoxyphene	◆	◆	◆	◆	◆
Diamorphine	◆	◆	◆	◆	◆
Diclofenac	◆	◆	◆	◆	◆
Diffunisal	◆	◆	◆	●	◆
Dihydrocodeine	◆	◆	◆	▲	▲
Etoricoxib	◆	◆	◆	◆	◆
Fentanyl (Prescribed)	◆	◆	◆	◆	◆
Flurbiprofen	◆	◆	◆	◆	◆
Hydrocodone	◆	◆	◆	◆	◆
Hydromorphone	◆	◆	◆	◆	◆
Ibuprofen	◆	◆	◆	◆	◆
Indometacin	◆	◆	◆	◆	◆
Ketoprofen	◆	◆	◆	◆	◆
Mefenamic acid	◆	◆	◆	●	◆
Meloxicam	◆	◆	◆	◆	◆
Metamizole (Dipyrone)	◆	◆	●	■	■
Methadone	◆	■	◆	◆	■
Morphine	◆	◆	◆	◆	◆
Naproxen	◆	◆	◆	◆	◆
Nefopam	◆	◆	◆	◆	◆
Oxycodone	◆	◆	◆	◆	◆
Paracetamol (Acetaminophen)	◆	◆	◆	▲	■
Pethidine (Meperidine)	◆	◆	◆	◆	◆
Piroxicam	◆	◆	◆	◆	◆
Tapentadol	◆	◆	◆	◆	◆
Tramadol	◆	▲	◆	◆	▲

	Atezo + Bez	LEN	PEM	REG	SOR
<b>Anthelmintics</b>					
Albendazole	◆	◆	◆	◆	◆
Ivermectin	◆	◆	◆	◆	◆
Nicosamide	◆	◆	◆	◆	◆
Oxamniquine	◆	◆	◆	◆	◆
Praziquantel	◆	◆	◆	◆	◆
Pyrantel	◆	◆	◆	◆	◆
<b>Antiarrhythmics</b>					
Amiodarone	◆	■	◆	▲	■
Bepridil	◆	■	◆	◆	■
Digoxin	◆	◆	◆	◆	■
Disopyramide	◆	■	◆	◆	■
Dofetilide	◆	■	◆	◆	■
Dronedarone	◆	■	◆	●	■
Flecainide	◆	■	◆	◆	■
Lidocaine (Lignocaine)	◆	◆	◆	◆	◆
Mexiletine	◆	◆	◆	◆	◆
Propafenone	◆	●	◆	◆	●
Quinidine	◆	■	◆	▲	■
Vernakalant	◆	■	◆	◆	■
<b>Antibacterials</b>					
Amikacin	◆	◆	◆	◆	◆
Amoxicillin	◆	◆	◆	◆	◆
Ampicillin	◆	◆	◆	◆	◆
Azithromycin	◆	■	◆	◆	■
Aztreonam	◆	◆	◆	◆	◆
Bedaquiline	◆	■	◆	◆	■
Benzylicillin	◆	◆	◆	◆	◆
Bezlotoxumab	◆	◆	◆	◆	◆
Capreomycin	◆	◆	◆	◆	◆
Cefaclor	◆	◆	◆	◆	◆
Cefadroxil	◆	◆	◆	◆	◆
Cefalexin	◆	◆	◆	◆	◆
Cefazolin	◆	◆	◆	◆	◆
Cefixime	◆	◆	◆	◆	◆
Cefotaxime	◆	◆	◆	◆	◆
Cefradine	◆	◆	◆	◆	◆
Ceftaroline	◆	◆	◆	◆	◆
Ceftazidime	◆	◆	◆	◆	◆
Ceftriaxone	◆	◆	◆	◆	◆
Cefuroxime	◆	◆	◆	◆	◆
Chloramphenicol	◆	◆	◆	■	▲
Ciprofloxacin	◆	■	◆	●	■
Clarithromycin	◆	■	◆	●	■
Clavulanic acid	◆	◆	◆	▲	◆
Clindamycin	◆	◆	◆	◆	◆

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**Key to symbols**

●	These drugs should not be coadministered
■	Potential clinically significant interaction that is likely to require additional 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

**Notes**

- Further information is available at [www.hep-druginteractions.org](http://www.hep-druginteractions.org)
- Predicted interactions are based on known metabolic pathways and routes of clearance.
- Caution is required in patients with hepatic impairment as this may also increase drug levels and require dose modification.
- Where advice differs between countries, the charts reflect the more cautious option.

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	Atezo + Bez	LEN	PEM	REG	SOR
<b>Antibacterials continued</b>					
Clofazimine	◆	◆	◆	●	◆
Cloxacillin	◆	◆	◆	◆	◆
Cycloserine	◆	◆	◆	◆	◆
Dapsone	◆	◆	◆	◆	◆
Daptomycin	◆	◆	◆	◆	◆
Delamanid	◆	■	◆	◆	■
Ertapenem	◆	◆	◆	◆	◆
Erythromycin	◆	■	◆	●	■
Ethambutol	◆	◆	◆	◆	◆
Flucloxacillin	◆	◆	◆	▲	▲
Fosfomycin	◆	◆	◆	◆	◆
Gentamicin	◆	◆	◆	◆	◆
Imipenem	◆	◆	◆	◆	◆
Isoniazid	◆	◆	◆	◆	◆
Levofloxacin	◆	■	◆	◆	■
Linezolid	◆	◆	◆	▲	◆
Lymecycline	◆	◆	◆	◆	◆
Meropenem	◆	◆	◆	◆	◆
Methenamine	◆	◆	◆	◆	◆
Metronidazole	◆	◆	◆	▲	◆
Moxifloxacin	◆	●	◆	■	●
Nitrofurantoin	◆	◆	◆	◆	◆
Norfloxacin	◆	◆	◆	◆	◆
Ofoxacin	◆	■	◆	◆	■
Penicillin V	◆	◆	◆	◆	◆
Piperacillin	◆	◆	◆	◆	◆
Pivmecillinam	◆	◆	◆	◆	◆
Pretomanid	▲	■	▲	▲	■
Pyrazinamide	◆	◆	◆	◆	◆
Rifabutin	◆	◆	◆	●	●
Rifampicin	◆	◆	◆	●	●
Rifapentine	◆	◆	◆	●	●
Rifaximin	◆	◆	◆	▲	▲
Spectinomycin	◆	◆	◆	◆	◆
Streptomycin	◆	◆	◆	◆	◆
Sulfadiazine	◆	◆	◆	◆	◆
Tazobactam	◆	◆	◆	◆	◆
Telithromycin	◆	■	◆	●	■
Temocillin	◆	◆	◆	◆	◆
Tetracyclines	◆	◆	◆	◆	◆
Ticarcillin	◆	◆	◆	◆	◆
Trimethoprim/Sulfamethoxazole	◆	◆	◆	◆	◆
Troleandomycin	◆	◆	◆	●	◆
Vancomycin	◆	◆	◆	◆	◆
<b>Anticoagulant, Anti-platelet and Fibrinolytic</b>					
Abciximab	▲	▲	◆	▲	▲
Acenocoumarol	■	◆	◆	■	■
Anagrelide	◆	◆	◆	◆	◆
Apixaban	■	◆	◆	■	▲
Caplacizumab	◆	◆	◆	◆	◆
Clopidogrel	◆	◆	◆	◆	◆
Dabigatran	■	◆	◆	■	▲
Dalteparin	■	◆	◆	■	◆
Danaparoid	■	◆	◆	■	◆
Dipyridamole	◆	◆	◆	◆	▲
Edoxaban	■	◆	◆	■	▲
Enoxaparin	■	◆	◆	■	◆
Fluindione	■	◆	◆	■	■
Fondaparinux	■	◆	◆	■	◆
Heparin	■	◆	◆	■	◆
Natalizumab	▲	▲	◆	▲	◆
Phenprocoumon	■	◆	◆	■	■
Prasugrel	■	◆	◆	■	◆
Rivaroxaban	■	◆	◆	■	▲
Streptokinase	◆	◆	◆	◆	◆
Ticagrelor	◆	◆	◆	■	▲
Ticlopidine	◆	◆	◆	■	◆
Tinzaparin	■	◆	◆	■	◆
Warfarin	■	◆	◆	■	■

	Atezo + Bez	LEN	PEM	REG	SOR
<b>Anticonvulsants</b>					
Carbamazepine	◆	◆	◆	●	●
Clonazepam	◆	◆	◆	◆	◆
Eslicarbazepine	◆	◆	◆	●	●
Ethosuximide	◆	◆	◆	◆	◆
Gabapentin	◆	◆	◆	◆	◆
Lacosamide	◆	◆	◆	◆	◆
Lamotrigine	◆	◆	◆	◆	◆
Levetiracetam	◆	▲	◆	◆	▲
Oxcarbazepine	◆	◆	◆	●	●
Ethosuximide	◆	◆	◆	◆	◆
Perampanel	◆	◆	◆	◆	◆
Phenobarbital	◆	◆	◆	●	●
Phenytoin	◆	◆	◆	●	●
Pregabalin	◆	◆	◆	◆	◆
Primidone	◆	◆	◆	●	●
Retigabine	◆	◆	◆	◆	◆
Rufinamide	◆	◆	◆	◆	◆
Sultiame	◆	◆	◆	◆	◆
Tiagabine	◆	◆	◆	◆	◆
Topiramate	◆	◆	◆	◆	◆
Valproic acid (Divalproex)	◆	◆	◆	■	▲
Vigabatrin	◆	◆	◆	◆	◆
Zonisamide	◆	◆	◆	◆	◆
<b>Antidepressants</b>					
Agomelatine	◆	◆	◆	◆	◆
Amisulpride	◆	■	◆	◆	■
Bupropion	◆	◆	◆	◆	◆
Citalopram	◆	■	◆	◆	■
Clomipramine	◆	■	◆	◆	■
Desipramine	◆	■	◆	◆	■
Desvenlafaxine	◆	◆	◆	◆	◆
Dosulepin	◆	■	◆	◆	■
Doxepin	◆	▲	◆	◆	▲
Duloxetine	◆	◆	◆	◆	◆
Escitalopram	◆	■	◆	◆	■
Fluoxetine	◆	■	◆	◆	■
Fluvoxamine	◆	▲	◆	●	▲
Imipramine	◆	■	◆	◆	■
Lithium	◆	■	◆	◆	■
Maprotiline	◆	■	◆	◆	■
Mianserin	◆	■	◆	◆	■
Milnacipran	◆	■	◆	◆	■
Mirtazapine	◆	■	◆	◆	■
Moclobemide	◆	●	◆	◆	●
Nefazodone	◆	■	◆	●	◆
Nortriptyline	◆	■	◆	◆	■
Paroxetine	◆	▲	◆	◆	▲
Phenelzine	●	●	●	●	●
Reboxetine	◆	◆	◆	◆	◆
Sertraline	◆	■	◆	◆	■
Tianeptine	◆	◆	◆	◆	◆
Trazodone	◆	■	◆	◆	■
Trimipramine	◆	■	◆	◆	■
Venlafaxine	◆	●	◆	◆	●
Vortioxetine	◆	◆	◆	◆	◆

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	Atezo + Bez	LEN	PEM	REG	SOR
<b>Antidiabetics</b>					
Acarbose	◆	◆	◆	◆	◆
Albiglutide	◆	◆	◆	◆	▲
Alogliptin	◆	◆	◆	◆	▲
Canagliflozin	◆	◆	◆	■	■
Dapagliflozin	◆	◆	◆	■	■
Dulaglutide	◆	◆	◆	◆	▲
Empagliflozin	◆	◆	◆	■	■
Exenatide	◆	◆	◆	◆	▲
Glibenclamide (Glyburide)	◆	◆	◆	◆	▲
Gliclazide	◆	◆	◆	◆	▲
Glimepiride	◆	◆	◆	◆	▲
Glipizide	◆	◆	◆	◆	▲
Insulin	◆	◆	◆	◆	◆
Linagliptin	◆	◆	◆	▲	◆
Liraglutide	◆	◆	◆	◆	▲
Lixisenatide	◆	◆	◆	◆	▲
Metformin	◆	◆	◆	◆	▲
Nateglinide	◆	◆	◆	◆	▲
Pioglitazone	◆	◆	◆	◆	▲
Repaglinide	◆	◆	◆	◆	▲
Rosiglitazone	◆	◆	◆	◆	▲
Saxagliptin	◆	◆	◆	◆	▲
Semaglutide	◆	◆	◆	◆	▲
Sitagliptin	◆	◆	◆	◆	▲
Tirzepatide	◆	◆	◆	◆	▲
Tolbutamide	◆	◆	◆	◆	▲
Vildagliptin	◆	◆	◆	◆	▲
<b>Antifungals</b>					
Amphotericin B	◆	▲	▲	▲	■
Anidulafungin	◆	◆	◆	◆	◆
Caspofungin	◆	◆	◆	◆	◆
Clotrimazole (pessary)	◆	◆	◆	◆	◆
Clotrimazole (topical)	◆	◆	◆	◆	◆
Fluconazole	◆	■	◆	●	■
Flucytosine	◆	▲	▲	▲	▲
Griseofulvin	◆	◆	◆	◆	◆
Isavuconazole	◆	◆	◆	●	◆
Itraconazole	◆	■	◆	■	■
Ketoconazole	◆	■	◆	●	■
Miconazole	◆	◆	◆	◆	◆
Nystatin	◆	◆	◆	◆	◆
Posaconazole	◆	■	◆	●	■
Terbinafine	◆	◆	◆	◆	■
Voriconazole	◆	■	◆	●	■
<b>Antithrombotics</b>					
Avatrombopag	▲	◆	◆	◆	◆
Eltrombopag	▲	◆	◆	■	▲
Tranexamic acid	◆	◆	◆	◆	◆
<b>Antihistamines</b>					
Astemizole	◆	■	◆	◆	■
Bilastine	◆	◆	◆	◆	◆
Cetirizine	◆	◆	◆	◆	◆
Chlorphenamine	◆	◆	◆	◆	◆
Desloratadine	◆	◆	◆	◆	◆
Diphenhydramine	◆	▲	◆	◆	▲
Doxylamine	◆	◆	◆	◆	◆
Ebastine	◆	◆	◆	◆	◆
Fexofenadine	◆	◆	◆	◆	▲
Hydroxyzine	◆	●	◆	◆	●
Levocetirizine	◆	◆	◆	◆	◆
Loratadine	◆	◆	◆	◆	◆
Promethazine	◆	■	◆	◆	■
Terfenadine	◆	●	◆	◆	●

	Atezo + Bez	LEN	PEM	REG	SOR
<b>Antimigraine Agents</b>					
Almotriptan	◆	◆	◆	◆	◆
Dihydroergotamine	◆	◆	◆	◆	◆
Eletriptan	◆	◆	◆	◆	◆
Eptinezumab	◆	◆	◆	◆	◆
Erenumab	◆	◆	◆	◆	◆
Ergotamine	◆	◆	◆	◆	◆
Fremanezumab	◆	◆	◆	◆	◆
Frovatriptan	◆	◆	◆	◆	◆
Galcanezumab	◆	◆	◆	◆	◆
Methylergonovine	◆	◆	◆	◆	◆
Naratriptan	◆	◆	◆	◆	◆
Pizotifen	◆	◆	◆	◆	◆
Rizatriptan	◆	◆	◆	◆	◆
Sumatriptan	◆	◆	◆	◆	◆
Zolmitriptan	◆	◆	◆	◆	◆
<b>Antiprotozoals</b>					
Amodiaquine	◆	◆	◆	◆	◆
Artemether	◆	●	◆	◆	●
Artemisinin	◆	●	◆	◆	●
Artesunate	◆	●	◆	◆	●
Atovaquone	◆	◆	■	◆	◆
Chloroquine	◆	●	◆	◆	■
Dihydroartemisinin	◆	◆	◆	◆	●
Doxycycline	◆	◆	◆	◆	◆
Halofantrine	◆	■	◆	◆	■
Hydroxychloroquine	◆	■	◆	◆	■
Lumefantrine	◆	●	◆	◆	●
Mefloquine	◆	■	◆	◆	■
Nitazoxanide	◆	◆	◆	◆	◆
Pentamidine	◆	■	◆	◆	■
Primaquine	◆	■	◆	◆	■
Proguanil	◆	◆	◆	◆	◆
Pyrimethamine	◆	◆	◆	◆	◆
Quinine	◆	■	◆	◆	■
Sodium stibogluconate	◆	■	◆	◆	■
Sulfadoxine	◆	◆	◆	◆	◆
<b>Antipsychotics/neuroleptics</b>					
Amisulpride	◆	■	◆	◆	■
Aripiprazole	◆	■	◆	◆	■
Asenapine	◆	■	◆	◆	■
Brexpiprazole	▲	▲	▲	▲	▲
Cariprazine	◆	▲	▲	▲	▲
Chlorpromazine	◆	■	◆	◆	■
Chlorprothixene	◆	◆	◆	◆	■
Clozapine	◆	■	▲	▲	■
Flupentixol	◆	●	◆	◆	●
Fluphenazine	◆	●	◆	◆	●
Haloperidol	◆	●	◆	◆	●
Iloperidone	◆	●	◆	◆	●
Levomepromazine	◆	■	◆	◆	■
Lurasidone	◆	■	◆	▲	■
Olanzapine	◆	■	◆	◆	■
Paliperidone	◆	■	◆	◆	■
Perazine	◆	▲	◆	◆	▲
Periciazine	◆	■	◆	◆	■
Perphenazine	◆	◆	◆	◆	◆
Pimozide	◆	●	◆	◆	●
Pipotiazine	◆	■	◆	◆	■
Prochlorperazine	◆	■	◆	◆	■
Promazine	◆	■	▲	▲	■
Quetiapine	◆	■	◆	◆	■
Risperidone	◆	■	◆	◆	■
Sulpiride	◆	■	◆	◆	■
Tiapride	◆	■	◆	◆	■
Trifluoperazine	◆	▲	◆	◆	▲
Ziprasidone	◆	●	◆	◆	●
Zuclopentixol	◆	●	◆	◆	●

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**Notes**

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# Interactions with HCC Therapies

Charts revised October 2024. Full information available at [www.hep-druginteractions.org](http://www.hep-druginteractions.org)

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

Atezo + Bez, Atezolizumab + bevacizumab; LEN, lenvatinib; PEM, pembrolizumab; REG, regorafenib; SOR, sorafenib.

	Atezo + Bez	LEN	PEM	REG	SOR
<b>Antivirals</b>					
Aciclovir	◆	◆	◆	◆	◆
Amantadine	◆	▲	◆	◆	▲
Ansuvimab	◆	◆	◆	◆	◆
Brincidofovir	◆	▲	▲	◆	◆
Brivudine	▲	◆	◆	◆	◆
Cidofovir	◆	▲	▲	◆	◆
Favipiravir	◆	◆	◆	◆	◆
Foscarnet	◆	■	◆	◆	■
Molnupiravir	◆	◆	◆	●	■
Nirmatrelvir/ritonavir	◆	◆	◆	●	■
Oseltamivir	◆	◆	◆	◆	◆
Palivizumab	◆	◆	◆	◆	◆
Remdesivir	◆	▲	◆	◆	▲
Rimantadine	◆	◆	◆	◆	◆
Sotrovimab	◆	◆	◆	◆	◆
Tecovirimat	◆	◆	◆	▲	▲
Tixagevimab/cilgavimab	◆	◆	◆	◆	◆
Valaciclovir	◆	◆	◆	◆	◆
Zanamivir	◆	◆	◆	◆	◆
<b>Anxiolytics/Hypnotics/Sedatives</b>					
Alprazolam	◆	◆	◆	◆	◆
Amobarbital	◆	◆	◆	●	●
Bromazepam	◆	◆	◆	◆	◆
Bromperidol	◆	■	◆	◆	●
Buspirone	◆	◆	◆	◆	◆
Clobazam	◆	◆	◆	◆	◆
Clorazepate	◆	◆	◆	◆	◆
Clotiapine	◆	■	◆	◆	■
Diazepam	◆	◆	◆	◆	◆
Estazolam	◆	◆	◆	◆	◆
Flurazepam	◆	◆	◆	◆	◆
Lorazepam	◆	◆	◆	◆	◆
Lormetazepam	◆	◆	◆	◆	◆
Midazolam (oral)	◆	◆	◆	◆	◆
Midazolam (parenteral)	◆	◆	◆	◆	◆
Oxazepam	◆	◆	◆	◆	◆
Quazepam	◆	◆	◆	◆	◆
Temazepam	◆	◆	◆	◆	◆
Triazolam	◆	◆	◆	◆	◆
Zaleplon	◆	◆	◆	◆	◆
Zolpidem	◆	◆	◆	◆	◆
Zopiclone	◆	◆	◆	◆	◆
<b>Beta Blockers</b>					
Atenolol	◆	▲	◆	▲	◆
Bisoprolol	◆	▲	◆	▲	▲
Carvedilol	◆	▲	◆	■	▲
Celiprolol	◆	▲	◆	▲	◆
Labetalol	◆	▲	◆	▲	▲
Metoprolol	◆	▲	◆	▲	◆
Nebivolol	◆	▲	◆	▲	◆
Oxprenolol	◆	▲	◆	■	◆
Pindolol	◆	▲	◆	▲	◆
Propranolol	◆	▲	◆	▲	▲
Sotalol	◆	■	◆	▲	■
Timolol	◆	▲	◆	▲	◆
<b>Bisphosphonates</b>					
Alendronic acid	▲	▲	◆	◆	▲
Clodronate	▲	▲	◆	◆	▲
Ibandronic acid	▲	▲	◆	◆	▲
Pamidronate	■	■	◆	◆	▲
Risedronate	▲	▲	◆	◆	▲
Zoledronic acid	■	■	◆	◆	▲

	Atezo + Bez	LEN	PEM	REG	SOR
<b>Bronchodilators</b>					
Acidinium bromide	◆	◆	◆	◆	◆
Formoterol	◆	◆	◆	◆	◆
Indacaterol	◆	◆	◆	◆	◆
Ipratropium bromide	◆	◆	◆	◆	◆
Montelukast	◆	◆	◆	◆	◆
Omalizumab	◆	◆	◆	◆	◆
Reslizumab	◆	◆	◆	◆	◆
Salbutamol	◆	◆	◆	◆	◆
Salmeterol	◆	◆	◆	◆	◆
Theophylline	◆	◆	◆	◆	◆
Tiotropium	◆	◆	◆	◆	◆
Vilanterol	◆	◆	◆	◆	◆
Umeclidinium bromide	◆	◆	◆	◆	◆
<b>Calcium Channel Blockers</b>					
Amlodipine	◆	▲	◆	▲	◆
Diltiazem	◆	▲	◆	▲	◆
Felodipine	◆	▲	◆	▲	▲
Nicardipine	◆	▲	◆	▲	▲
Nifedipine	◆	▲	◆	▲	◆
Nisoldipine	◆	▲	◆	▲	◆
Nitrendipine	◆	▲	◆	▲	◆
Verapamil	◆	▲	◆	▲	◆

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# Interactions with HCC Therapies

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Cancer Therapies	Atezo + Bez	LEN	PEM	REG	SOR
Abiraterone	▲	■	◆	◆	■
Acalabrutinib	◆	◆	▲	▲	▲
Afatinib	◆	◆	◆	■	■
Alectinib	▲	◆	▲	▲	▲
Alpelisib	▲	▲	◆	■	▲
Amivantamab	◆	◆	◆	◆	◆
Anastrozole	◆	◆	◆	◆	◆
Apalutamide	◆	■	◆	●	●
Asciminib	▲	■	▲	■	■
Asparaginase	◆	◆	◆	◆	◆
Atezolizumab	●	▲	▲	▲	▲
Avapritinib	▲	■	▲	■	■
Avelumab	◆	◆	◆	◆	◆
Axitinib	◆	◆	■	◆	◆
Azacitidine	▲	▲	▲	▲	▲
Belantamab mafodotin	▲	▲	▲	▲	▲
Bendamustine	▲	■	▲	▲	■
Bevacizumab	●	◆	■	▲	◆
Bexarotene	◆	◆	◆	◆	◆
Bicalutamide	◆	■	◆	▲	■
Blinatumomab	◆	◆	■	◆	◆
Bortezomib	▲	■	■	◆	■
Bosutinib	▲	■	■	▲	■
Brentuximab vedotin	◆	◆	■	◆	◆
Capecitabine	▲	■	■	◆	■
Carboplatin	▲	◆	▲	▲	■
Carfilzomib	◆	■	▲	▲	■
Cetuximab	▲	◆	◆	◆	◆
Chlorambucil	▲	◆	■	▲	■
Cisplatin	▲	◆	■	▲	■
Cyclophosphamide	◆	◆	■	▲	◆
Daratumumab	◆	◆	■	▲	◆
Dasatinib	▲	■	■	◆	■
Dinutuximab beta	▲	▲	▲	▲	◆
Dostarlimab	▲	▲	▲	▲	◆
Doxorubicin	◆	▲	■	▲	■
Durvalumab	▲	▲	◆	▲	◆
Elotuzumab	◆	▲	◆	◆	◆
Elranatamab	▲	▲	◆	▲	◆
Enzalutamide	◆	■	◆	●	●
Eporitamab	▲	▲	▲	▲	◆
Epirubicin	▲	■	▲	▲	■
Erlotinib	◆	◆	◆	◆	◆
Estramustine	▲	◆	■	■	■
Etoposide	▲	◆	■	■	■
Everolimus	◆	▲	●	▲	■
Exemestane	▲	◆	◆	◆	◆
Fludarabine	◆	■	■	◆	■
Gefitinib	▲	◆	◆	■	◆
Gemcitabine	▲	◆	■	▲	◆
Gemtuzumab ozogamicin	▲	▲	▲	▲	▲
Glofitamab	▲	▲	▲	▲	◆
Hydroxyurea (Hydroxycarbamide)	▲	▲	▲	▲	▲
Ibrutinib	▲	▲	▲	▲	◆
Idarubicin	▲	◆	■	▲	■
Idelalisib	▲	▲	▲	●	■
Imatinib	▲	■	■	■	■
Inotuzumab ozogamicin	▲	■	▲	▲	■
Ipilimumab	▲	◆	■	▲	◆
Irinotecan	▲	◆	■	■	■
Isatuximab	◆	▲	■	◆	◆
Ixazomib	◆	◆	■	◆	◆
Lapatinib	◆	■	◆	◆	■

Cancer Therapies continued	Atezo + Bez	LEN	PEM	REG	SOR
Letrozole	▲	◆	◆	◆	◆
Loncastuximab tesirine	▲	▲	▲	▲	▲
Medroxyprogesterone (oncology)	◆	◆	◆	◆	◆
Mercaptopurine	◆	◆	■	▲	◆
Mesna	▲	◆	◆	◆	◆
Methotrexate	▲	◆	■	■	■
Mitoxantrone	◆	◆	◆	■	◆
Mogamulizumab	◆	◆	◆	◆	◆
Nilotinib	▲	■	◆	■	■
Niraparib	▲	■	■	▲	◆
Nivolumab	◆	◆	■	◆	◆
Obinutuzumab	▲	◆	◆	◆	◆
Ofatumumab	▲	◆	■	▲	◆
Olaparib	▲	▲	■	▲	▲
Olaratumab	▲	◆	■	◆	◆
Osimertinib	▲	■	▲	▲	■
Oxaliplatin	▲	■	■	▲	■
Paclitaxel	▲	▲	■	▲	■
Panitumumab	▲	◆	◆	◆	◆
Panobinostat	▲	●	■	▲	●
Pomalidomide	■	■	■	■	▲
Ponatinib	■	■	■	■	▲
Pertuzumab	◆	▲	▲	▲	◆
Ramucirumab	▲	▲	◆	▲	◆
Retifanlimab	▲	▲	■	▲	▲
Rituximab	▲	◆	■	▲	◆
Ruxolitinib	▲	▲	▲	▲	▲
Sacituzumab govitecan	▲	▲	▲	●	●
Sunitinib	■	■	■	▲	■
Tamoxifen	◆	▲	◆	◆	▲
Temsirolimus	▲	◆	●	◆	◆
Tisotumab vedotin	▲	▲	▲	▲	▲
Trametinib	▲	◆	◆	▲	▲
Trastuzumab	▲	▲	▲	▲	◆
Trastuzumab deruxtecan	▲	▲	▲	▲	▲
Trastuzumab emtansine	▲	▲	▲	▲	▲
Trifluridine/tipiracil	▲	▲	▲	▲	▲
Vinblastine	▲	◆	■	▲	◆
Vincristine	▲	◆	■	▲	◆
Vinorelbine	◆	◆	■	◆	▲

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	Atezo + Bez	LEN	PEM	REG	SOR
<b>Contraceptives</b>					
Conjugated estrogens (HRT)	◆	◆	◆	◆	◆
Desogestrel (POP)	◆	■	◆	◆	◆
Desogestrel/ethinylestradiol (COC) (>20 µg)	◆	■	◆	◆	◆
Desogestrel/ethinylestradiol (COC) (≤20 µg)	◆	■	◆	◆	◆
Dienogest	◆	■	◆	◆	◆
Drospirenone (POP)	◆	■	◆	◆	◆
Drospirenone/estradiol (HRT)	◆	◆	◆	◆	◆
Drospirenone/ethinylestradiol (COC) (>20 µg)	◆	■	◆	◆	◆
Drospirenone/ethinylestradiol (COC) (≤20 µg)	◆	■	◆	◆	◆
Dydrogesterone/estradiol (HRT)	◆	◆	◆	◆	◆
Ethinylestradiol (>20 µg)	◆	■	◆	◆	◆
Ethinylestradiol (≤20 µg)	◆	■	◆	◆	◆
Etonogestrel (implant)	◆	■	◆	◆	◆
Etonogestrel (vaginal ring)	◆	■	◆	◆	◆
Gestodene/ethinylestradiol (COC) (>20 µg)	◆	■	◆	◆	◆
Gestodene/ethinylestradiol (COC) (≤20 µg)	◆	■	◆	◆	◆
Levonorgestrel (Emergency Contraception)	◆	■	◆	◆	◆
Levonorgestrel (HRT)	◆	◆	◆	◆	◆
Levonorgestrel (implant)	◆	■	◆	◆	◆
Levonorgestrel (IUD)	◆	■	◆	◆	◆
Levonorgestrel (POP)	◆	■	◆	◆	◆
Levonorgestrel/ethinylestradiol (COC) (>20 µg)	◆	■	◆	◆	◆
Levonorgestrel/ethinylestradiol (COC) (>20 µg)	◆	■	◆	◆	◆
Medroxyprogesterone (depot)	◆	■	◆	◆	◆
Medroxyprogesterone (oral)	◆	■	◆	◆	◆
Medroxyprogesterone/conjugated estrogens (HRT)	◆	◆	◆	◆	◆
Medroxyprogesterone/estradiol (HRT)	◆	◆	◆	◆	◆
Micronized progesterone (HRT)	◆	◆	◆	◆	◆
Norelgestromin/ethinylestradiol (patch)	◆	■	◆	◆	◆
Norethisterone (Norethindrone) (depot injection)	◆	■	◆	◆	◆
Norethisterone (Norethindrone) (POP)	◆	■	◆	◆	◆
Norethisterone (Norethindrone)/estradiol (HRT)	◆	◆	◆	◆	◆
Norethisterone (Norethindrone)/ethinylestradiol (COC)	◆	■	◆	◆	◆
Norethisterone (Norethindrone)/mestranol (COC)	◆	■	◆	◆	◆
Norgestimate/ethinylestradiol (COC)	◆	■	◆	◆	◆
Norgestrel/conjugated estrogens (HRT)	◆	◆	◆	◆	◆
Norgestrel/ethinylestradiol (COC)	◆	■	◆	◆	◆
Testosterone	◆	◆	◆	◆	◆
<b>Erectile Dysfunction Agents</b>					
Sildenafil	◆	◆	◆	◆	◆
Tadalafil	◆	◆	◆	◆	◆
Vardenafil	◆	◆	◆	◆	◆
Yohimbine	◆	◆	◆	◆	◆

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	Atezo + Bez	LEN	PEM	REG	SOR
<b>Gastrointestinal Agents</b>					
Aluminium hydroxide	◆	◆	◆	◆	◆
Alverine citrate	◆	◆	◆	◆	◆
Antacids	◆	◆	◆	◆	◆
Aprepitant	◆	◆	◆	■	◆
Bisacodyl	◆	◆	◆	◆	◆
Bismuth subsalicylate	◆	◆	◆	◆	◆
Cimetidine	◆	◆	◆	▲	◆
Cisapride	◆	■	◆	◆	■
Cyclizine	◆	◆	◆	◆	◆
Dantron	◆	◆	◆	◆	◆
Docosate sodium	◆	◆	◆	◆	◆
Domperidone	◆	●	◆	◆	●
Droperidol	◆	●	◆	◆	●
Esomeprazole	◆	◆	◆	◆	◆
Famotidine	◆	▲	◆	◆	▲
Granisetron	◆	■	◆	◆	■
Hyoscine (Scopolamine)	◆	◆	◆	◆	◆
Hyoscine butylbromide	◆	◆	◆	◆	◆
Hyoscine hydrobromide (Scopolamine hydrobromide)	◆	◆	◆	◆	◆
Ispaghula husk	◆	◆	◆	◆	◆
Lactulose	◆	◆	◆	◆	◆
Lafutidine	◆	◆	◆	▲	◆
Lansoprazole	◆	◆	◆	◆	◆
Linacotide	◆	◆	◆	◆	◆
Loperamide	◆	◆	◆	◆	◆
Lubiprostone	◆	◆	◆	◆	◆
Macrogol	◆	▲	◆	▲	▲
Mebeverine	◆	◆	◆	◆	◆
Mesalazine	◆	◆	◆	◆	◆
Methylcellulose	◆	◆	◆	◆	◆
Metoclopramide	◆	■	◆	◆	■
Naloxegol	◆	◆	◆	◆	◆
Nizatidine	◆	◆	◆	◆	◆
Omeprazole	◆	◆	◆	◆	◆
Ondansetron	◆	■	◆	◆	■
Pantoprazole	◆	◆	◆	◆	◆
Prucalopride	◆	◆	◆	◆	◆
Rabeprazole	◆	◆	◆	◆	◆
Ranitidine	◆	◆	◆	◆	◆
Roxatidine	◆	◆	◆	◆	◆
Senna	◆	◆	◆	◆	◆
Simeticone	◆	◆	◆	◆	◆
Sulfasalazine	◆	◆	◆	●	▲
Trimebutine	◆	◆	◆	◆	◆
Vonoprazan	◆	■	◆	▲	■
<b>HCC Therapies</b>					
Atezolizumab + bevacizumab		▲	▲	▲	▲
Lenvatinib	▲		▲	▲	▲
Pembrolizumab	▲	▲		▲	▲
Regorafenib	▲	▲	▲		■
Sorafenib	▲	▲	▲	■	
<b>Hepatitis B Drugs</b>					
Adefovir	◆	◆	◆	◆	◆
Entecavir	◆	◆	◆	◆	◆
Lamivudine	◆	◆	◆	◆	◆
Peginterferon alfa-2a	■	▲	▲	▲	▲
Peginterferon alfa-2b	■	▲	▲	▲	▲
Ribavirin	◆	▲	■	▲	▲
Telbivudine	◆	◆	◆	◆	◆
Tenofovir alafenamide (TAF)	◆	◆	◆	◆	▲
Tenofovir-DF	◆	◆	◆	◆	▲
<b>Hepatitis C Drugs</b>					
Daclatasvir	◆	◆	◆	◆	◆
Elbasvir/Grazoprevir	◆	◆	◆	▲	■
Glecaprevir/Pibrentasvir	◆	◆	◆	▲	◆
Ledipasvir/Sofosbuvir	◆	◆	◆	■	◆
OBV/PTV/r	◆	◆	◆	●	■
OBV/PTV/r + Dasabuvir	◆	◆	◆	●	■
Ravidasvir	◆	◆	◆	■	◆
Ribavirin	◆	▲	■	▲	▲
Sofosbuvir (SOF)	◆	◆	◆	◆	◆
SOF/Velpatasvir	◆	◆	◆	■	◆
SOF/Velpatasvir/Voxilaprevir	◆	◆	◆	■	◆
<b>Hepatitis D Entry Inhibitor</b>					
Bulevirtide	◆	◆	◆	◆	◆

**Key to symbols**

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■	Potential clinically significant interaction that is likely to require additional 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

**Notes**

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# Interactions with HCC Therapies

Charts revised October 2024. Full information available at [www.hep-druginteractions.org](http://www.hep-druginteractions.org)

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

Atezo + Bez, Atezolizumab + bevacizumab; LEN, lenvatinib; PEM, pembrolizumab; REG, regorafenib; SOR, sorafenib.

	Atezo + Bez	LEN	PEM	REG	SOR
<b>Herbals/Supplements/Vitamins</b>					
Aloe vera	◆	◆	◆	◆	◆
Ascorbic acid (Vitamin C)	◆	◆	◆	◆	◆
Ashwagandha (Withania somnifera)	◆	◆	◆	◆	◆
Black cohosh ( <i>A. racemosa</i> )	◆	◆	◆	◆	◆
Cat's claw ( <i>U. tomentosa</i> )	◆	◆	◆	◆	◆
Colecalciferol (Vitamin D3)	◆	◆	◆	◆	◆
Cyanocobalamin (B12)	◆	◆	◆	◆	◆
Diosmin	◆	◆	◆	◆	◆
Echinacea	◆	◆	◆	◆	◆
Enteric feeds	◆	◆	◆	◆	◆
Eucalyptus globulus	◆	◆	◆	◆	◆
Ferrous sulfate	◆	◆	◆	◆	◆
Folic acid	◆	◆	◆	◆	◆
Garlic	◆	◆	◆	◆	◆
Ginger ( <i>Z. officinale</i> )	◆	◆	◆	◆	◆
Ginkgo biloba	◆	◆	◆	◆	◆
Ginseng	◆	◆	◆	◆	◆
Goldenseal ( <i>H. canadensis</i> )	◆	◆	◆	◆	◆
Grape seed extract	◆	◆	◆	◆	◆
Grapefruit juice	◆	◆	◆	◆	◆
Green tea ( <i>C. sinensis</i> )	◆	◆	◆	◆	◆
Homeopathic remedies	◆	◆	◆	◆	◆
Inula racemosa	◆	◆	◆	◆	◆
Iodine	◆	◆	◆	◆	◆
Kava kava ( <i>P. methysticum</i> )	◆	◆	◆	◆	◆
L-lysine	◆	◆	◆	◆	◆
Menthol	◆	◆	◆	◆	◆
Milk thistle	◆	◆	◆	◆	◆
Mucuna pruriens	◆	◆	◆	◆	◆
Niacin (Vitamin B3)	◆	◆	◆	◆	◆
Oral nutritional supplements	◆	◆	◆	◆	◆
Oregano oil	◆	◆	◆	◆	◆
Pyridoxine (Vitamin B6)	◆	◆	◆	◆	◆
Retinol (Vitamin A)	◆	◆	◆	◆	◆
Riboflavin (Vitamin B2)	◆	◆	◆	◆	◆
Saw palmetto ( <i>S. repens</i> )	◆	◆	◆	◆	◆
St John's wort	◆	◆	◆	◆	◆
THC capsules	◆	◆	◆	◆	◆
Thiamine (Vitamin B1)	◆	◆	◆	◆	◆
Turmeric (curcumin)	◆	◆	◆	◆	◆
Valerian	◆	◆	◆	◆	◆
Vitamin E	◆	◆	◆	◆	◆
Zinc	◆	◆	◆	◆	◆
<b>HIV Drugs</b>					
<b>Entry/Integrase Inhibitors</b>					
Albuvirtide	◆	◆	◆	◆	◆
Bictegravir/FTC/TAF	◆	◆	◆	◆	◆
Cabotegravir (oral)	◆	◆	◆	◆	◆
Cabotegravir/rilpivirine (LA)	◆	◆	◆	◆	◆
Dolutegravir	◆	◆	◆	◆	◆
Dolutegravir/ABC/3TC	◆	◆	◆	◆	◆
Dolutegravir/rilpivirine	◆	◆	◆	◆	◆
Elvitegravir/cobi /FTC/TAF	◆	◆	◆	◆	◆
Elvitegravir/cobi/FTC/TDF	◆	◆	◆	◆	◆
Enfuvirtide	◆	◆	◆	◆	◆
Fostemsavir	◆	◆	◆	◆	◆
Ibalizumab-uyyk	◆	◆	◆	◆	◆
Lenacapavir	◆	◆	◆	◆	◆
Maraviroc	◆	◆	◆	◆	◆
Raltegravir	◆	◆	◆	◆	◆
<b>NNRTIs</b>					
Dapivirine	◆	◆	◆	◆	◆
Doravirine	◆	◆	◆	◆	◆
Doravirine/3TC/TDF	◆	◆	◆	◆	◆
Efavirenz	◆	◆	◆	◆	◆
Etravirine	◆	◆	◆	◆	◆
Nevirapine	◆	◆	◆	◆	◆
Rilpivirine	◆	◆	◆	◆	◆
Rilpivirine/FTC/TAF	◆	◆	◆	◆	◆
<b>NRTIs</b>					
Abacavir	◆	◆	◆	◆	◆
Didanosine	◆	◆	◆	◆	◆
Emtricitabine (FTC)	◆	◆	◆	◆	◆
Emtricitabine + TAF	◆	◆	◆	◆	◆
Emtricitabine + TDF	◆	◆	◆	◆	◆
Lamivudine	◆	◆	◆	◆	◆
Stavudine	◆	◆	◆	◆	◆
Tenofovir-DF	◆	◆	◆	◆	◆
Zidovudine	◆	◆	◆	◆	◆

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	Atezo + Bez	LEN	PEM	REG	SOR
<b>HIV Drugs continued</b>					
<b>Protease Inhibitors</b>					
Atazanavir alone	◆	◆	◆	◆	◆
Atazanavir/cobicistat	◆	◆	◆	◆	◆
Atazanavir + ritonavir	◆	◆	◆	◆	◆
Darunavir/cobicistat	◆	◆	◆	◆	◆
Darunavir/cobi/FTC/TAF	◆	◆	◆	◆	◆
Darunavir + ritonavir	◆	◆	◆	◆	◆
Fosamprenavir	◆	◆	◆	◆	◆
Indinavir	◆	◆	◆	◆	◆
Lopinavir	◆	◆	◆	◆	◆
Ritonavir	◆	◆	◆	◆	◆
Tipranavir	◆	◆	◆	◆	◆
<b>Hypertension/Heart Failure Agents</b>					
Acebutolol	◆	◆	◆	◆	◆
Aliskiren	◆	◆	◆	◆	◆
Ambrisentan	◆	◆	◆	◆	◆
Amiloride	◆	◆	◆	◆	◆
Azilsartan	◆	◆	◆	◆	◆
Benazepril	◆	◆	◆	◆	◆
Bendroflumethiazide	◆	◆	◆	◆	◆
Bosentan	◆	◆	◆	◆	◆
Bumetanide	◆	◆	◆	◆	◆
Candesartan	◆	◆	◆	◆	◆
Captopril	◆	◆	◆	◆	◆
Chlorthalidone	◆	◆	◆	◆	◆
Chlortalidone	◆	◆	◆	◆	◆
Cilazapril	◆	◆	◆	◆	◆
Clevidipine	◆	◆	◆	◆	◆
Clonidine	◆	◆	◆	◆	◆
Doxazosin	◆	◆	◆	◆	◆
Enalapril	◆	◆	◆	◆	◆
Eplerenone	◆	◆	◆	◆	◆
Epoprostenol	◆	◆	◆	◆	◆
Eprosartan	◆	◆	◆	◆	◆
Fosinopril	◆	◆	◆	◆	◆
Furosemide	◆	◆	◆	◆	◆
Hydralazine	◆	◆	◆	◆	◆
Hydrochlorothiazide	◆	◆	◆	◆	◆
Iloprost	◆	◆	◆	◆	◆
Indapamide	◆	◆	◆	◆	◆
Irbesartan	◆	◆	◆	◆	◆
Isradipine	◆	◆	◆	◆	◆
Ivabradine	◆	◆	◆	◆	◆
Lacidipine	◆	◆	◆	◆	◆
Lercanidipine	◆	◆	◆	◆	◆
Lisinopril	◆	◆	◆	◆	◆
Losartan	◆	◆	◆	◆	◆
Macitentan	◆	◆	◆	◆	◆
Methyldopa	◆	◆	◆	◆	◆
Metolazone	◆	◆	◆	◆	◆
Moxonidine	◆	◆	◆	◆	◆
Olmesartan	◆	◆	◆	◆	◆
Perindopril	◆	◆	◆	◆	◆
Prazosin	◆	◆	◆	◆	◆
Quinapril	◆	◆	◆	◆	◆
Ramipril	◆	◆	◆	◆	◆
Ranolazine	◆	◆	◆	◆	◆
Rilmenidine	◆	◆	◆	◆	◆
Riociguat	◆	◆	◆	◆	◆
Sacubitril/valsartan	◆	◆	◆	◆	◆
Selexipag	◆	◆	◆	◆	◆
Sildenafil	◆	◆	◆	◆	◆
Sodium nitroprusside	◆	◆	◆	◆	◆
Spironolactone	◆	◆	◆	◆	◆
Tadalafil	◆	◆	◆	◆	◆
Telmisartan	◆	◆	◆	◆	◆
Torsemide	◆	◆	◆	◆	◆
Trandolapril	◆	◆	◆	◆	◆
Treprostinil	◆	◆	◆	◆	◆
Valsartan	◆	◆	◆	◆	◆
Xipamide	◆	◆	◆	◆	◆
Zofenopril	◆	◆	◆	◆	◆

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	Atezo + Bez	LEN	PEM	REG	SOR
<b>Illicit/Recreational</b>					
Alcohol	◆	◆	◆	◆	◆
Amphetamine	◆	◆	◆	◆	◆
Cannabis	◆	◆	◆	◆	◆
Carfentanil	◆	◆	◆	◆	◆
Cocaine	◆	●	◆	◆	●
Ecstasy (MDMA)	◆	●	◆	◆	●
Etizolam	◆	◆	◆	◆	◆
Fentanyl (Recreational)	◆	◆	◆	◆	◆
GHB (Gamma-hydroxybutyrate)	◆	◆	◆	◆	◆
Heroin	◆	◆	◆	◆	◆
LSD (Lysergic acid diethylamide)	◆	◆	◆	◆	◆
Mephedrone	◆	◆	◆	◆	◆
Methamphetamine	◆	◆	◆	◆	◆
Nitazenes	◆	◆	◆	▲	●
Nicotine	◆	◆	◆	◆	◆
Phencyclidine (PCP)	◆	◆	◆	◆	◆
<b>Immunosuppressants</b>					
Abatacept	▲	◆	▲	▲	◆
Adalimumab	▲	◆	▲	▲	◆
Alemtuzumab	▲	◆	●	◆	◆
Anakinra	▲	▲	▲	▲	▲
Azathioprine	▲	▲	●	▲	▲
Baricitinib	▲	▲	●	▲	▲
Basiliximab	▲	◆	●	◆	◆
Belimumab	▲	◆	◆	◆	◆
Bimekizumab	▲	◆	◆	◆	◆
Brodalumab	▲	◆	●	◆	◆
Canakinumab	▲	▲	▲	▲	▲
Ciclosporin	▲	◆	●	●	▲
Eculizumab	▲	◆	●	◆	◆
Etanercept	▲	◆	●	◆	◆
Fingolimod	▲	◆	●	◆	◆
Golimumab	▲	▲	●	▲	▲
Guselkumab	▲	◆	◆	◆	◆
Infliximab	▲	▲	▲	▲	▲
Ixekizumab	▲	◆	◆	◆	◆
Lenalidomide	▲	◆	●	◆	◆
Mirikizumab	▲	◆	◆	◆	◆
Mycophenolate	▲	▲	●	■	▲
Pirfenidone	▲	◆	●	◆	◆
Ravulizumab	▲	◆	◆	◆	◆
Risankizumab	▲	◆	◆	◆	◆
Sarilumab	▲	▲	▲	▲	▲
Secukinumab	▲	◆	◆	◆	◆
Siltuximab	▲	▲	◆	▲	◆
Sirolimus	▲	▲	●	▲	■
Tacrolimus	▲	■	●	●	■
Tildrakizumab	▲	◆	◆	◆	◆
Tocilizumab	▲	▲	▲	▲	▲
Tralokinumab	▲	◆	◆	◆	◆
Ublituximab	▲	◆	◆	◆	◆
Upadacitinib	▲	▲	▲	▲	▲
Ustekinumab	▲	◆	◆	◆	◆
Vedolizumab	▲	◆	◆	◆	◆
<b>Lipid Lowering Agents</b>					
Alirocumab	◆	◆	◆	◆	◆
Atorvastatin	◆	◆	◆	■	■
Bempedoic acid	◆	◆	◆	◆	◆
Bezafibrate	◆	◆	◆	◆	◆
Evolocumab	◆	◆	◆	◆	◆
Ezetimibe	◆	◆	◆	▲	▲
Fenofibrate	◆	◆	◆	◆	◆
Fish oils	◆	◆	◆	◆	◆
Fluvastatin	◆	◆	◆	■	◆
Gemfibrozil	◆	◆	◆	◆	◆
Icosapent ethyl	◆	◆	◆	◆	◆
Lovastatin	◆	◆	◆	◆	◆
Pitavastatin	◆	◆	◆	◆	▲
Pravastatin	◆	◆	◆	◆	▲
Rosuvastatin	◆	◆	◆	■	▲
Simvastatin	◆	◆	◆	■	▲

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	Atezo + Bez	LEN	PEM	REG	SOR
<b>Other Drugs</b>					
Acamprosate	◆	◆	◆	◆	◆
Acetazolamide	◆	◆	◆	◆	◆
Acitretin	◆	◆	◆	◆	◆
Activated charcoal	◆	▲	■	▲	▲
Allopurinol	◆	◆	■	◆	◆
Atomoxetine	◆	■	◆	◆	■
Atropine	◆	◆	◆	◆	◆
Baclofen	◆	◆	◆	◆	◆
Bamlanivimab	◆	◆	◆	◆	◆
Benralizumab	◆	◆	◆	◆	◆
Betahistine	◆	◆	◆	◆	◆
Bimatoprost	◆	◆	◆	◆	◆
Biperiden	◆	◆	◆	◆	◆
Brimonidine	◆	◆	◆	◆	◆
Brinzolamide	◆	◆	◆	◆	◆
Bromocriptine	◆	◆	◆	◆	◆
Burosumab	◆	◆	◆	◆	◆
Calcitonin	◆	◆	◆	◆	◆
Calcium carbimide	◆	◆	◆	◆	◆
Calcium resonium	◆	◆	◆	◆	◆
Cannabidiol (CBD)	◆	◆	◆	◆	◆
Carbimazole	◆	◆	◆	◆	◆
Carisoprodol	◆	◆	◆	◆	◆
Casirivimab/imdevimab	◆	◆	◆	◆	◆
Cilostazol	◆	■	◆	◆	■
Clomifene	◆	◆	◆	◆	◆
Colchicine	◆	◆	◆	◆	◆
Colestyramine	◆	▲	◆	■	▲
Conivaptan	◆	◆	◆	●	◆
Convalescent plasma (COVID-19)	◆	◆	◆	◆	◆
COVID-19 vaccines	◆	◆	◆	◆	◆
Crizanlizumab	◆	◆	◆	◆	◆
Cyclobenzaprine	◆	◆	◆	◆	◆
Cyproterone acetate	◆	●	●	●	●
Cytisine	◆	◆	◆	◆	◆
Darbepoetin	◆	◆	◆	◆	◆
Deferiprone	◆	◆	◆	◆	◆
Denosumab	◆	◆	◆	◆	◆
Dexamfetamine	◆	◆	◆	◆	◆
Dextromethorphan	◆	◆	◆	◆	◆
Disulfiram	◆	◆	◆	◆	◆
Donepezil	◆	■	◆	◆	■
Dorzolamide	◆	◆	◆	◆	◆
Dupilumab	◆	◆	◆	◆	◆
Elglustat	◆	▲	◆	◆	▲
Emicizumab	◆	◆	◆	◆	◆
Epoetin alfa	◆	◆	◆	◆	◆
Etelcalcetide	◆	◆	◆	◆	◆
Faricimab	◆	◆	◆	◆	◆
Febuxostat	◆	◆	◆	◆	◆
Filgrastim	◆	◆	◆	◆	◆
Flibanserin	◆	◆	◆	◆	◆
Gadopentetate (gadolinium)	◆	◆	◆	◆	◆
Glucose monohydrate (IV)	◆	◆	◆	◆	◆
Glycerol phenylbutyrate	◆	◆	◆	◆	◆
Goserelin acetate	◆	■	◆	◆	■
Guanfacine	◆	●	◆	◆	●
Influenza vaccine	◆	◆	◆	◆	◆
Interferon beta	◆	▲	▲	▲	▲

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<b>Other Drugs Continued</b>					
Isosorbide mononitrate	◆	▲	◆	▲	◆
Isotretinoin	◆	◆	◆	◆	◆
Lanadelumab	◆	◆	◆	◆	◆
Lanreotide	◆	◆	◆	◆	◆
Lebrikizumab	◆	◆	◆	◆	◆
Leuprorelin acetate	◆	■	◆	◆	■
Levothyroxine	◆	■	◆	◆	◆
Lisdexamfetamine	◆	▲	◆	◆	▲
Lofexidine	◆	■	◆	◆	■
Lumacaftor/Ivacaftor	◆	◆	◆	●	●
Magnesium	◆	◆	◆	◆	◆
Melatonin	◆	◆	◆	◆	◆
Memantine	◆	▲	◆	◆	■
Mepolizumab	◆	◆	◆	◆	◆
Methimazole (Thiamazole)	▲	▲	▲	▲	▲
Methylphenidate	◆	◆	◆	◆	▲
Minoxidil	◆	◆	◆	▲	▲
Modafinil	◆	◆	◆	■	■
Nafidrofuryl	◆	◆	◆	◆	◆
Nalmefene	◆	◆	◆	◆	◆
Naloxone	◆	◆	◆	◆	◆
Naltrexone	◆	◆	◆	▲	▲
Neostigmine	◆	◆	◆	◆	◆
Nicorandil	◆	◆	◆	◆	◆
Nusinersen	◆	■	◆	◆	■
Ocrelizumab	◆	◆	◆	◆	◆
Orlistat	◆	▲	◆	▲	▲
Penicillamine	◆	◆	◆	◆	◆
Pentoxifylline	◆	◆	◆	◆	◆
Phenylephrine	◆	◆	◆	◆	◆
Pilocarpine	◆	◆	◆	◆	◆
Piracetam	◆	◆	◆	◆	◆
Potassium	◆	◆	◆	◆	◆
Propylthiouracil	◆	▲	▲	▲	▲
Protamine sulphate	◆	◆	◆	◆	◆
Pseudoephedrine	◆	◆	◆	◆	◆
Pyridostigmine	◆	◆	◆	◆	◆
Raloxifene	◆	◆	◆	▲	▲
Ranibizumab	◆	◆	◆	◆	◆
Romosozumab	◆	◆	◆	◆	▲
Rozenolizumab	■	◆	■	◆	◆
Sevelamer	◆	▲	◆	▲	▲
Strontium ranelate	◆	◆	◆	◆	◆
Thalidomide	▲	◆	■	▲	◆
Triptorelin	◆	■	◆	◆	■
Varenicline	◆	◆	◆	◆	◆

	Atezo + Bez	LEN	PEM	REG	SOR
<b>Oxytocics</b>					
Ergometrine (ergonovine)	◆	◆	◆	◆	◆
Mifepristone	◆	◆	◆	◆	◆
Misoprostol	◆	◆	◆	◆	◆
<b>Parkinsonism Agents</b>					
Benzotropine	◆	◆	◆	◆	◆
Carbidopa	◆	◆	◆	◆	◆
Orphenadrine	◆	◆	◆	◆	◆
Pramipexole	◆	◆	◆	◆	◆
Procyclidine	◆	◆	◆	◆	◆
Rasagiline	◆	◆	◆	◆	◆
Ropinirole	◆	◆	◆	◆	◆
<b>PBC Agents</b>					
Obeticholic acid	◆	◆	◆	◆	◆
Ursodeoxycholic acid	◆	◆	◆	◆	◆
<b>Steroids</b>					
Beclometasone	▲	◆	●	◆	◆
Betamethasone	▲	◆	●	◆	◆
Budesonide	▲	◆	●	◆	◆
Ciclesonide	▲	◆	●	◆	◆
Clobetasol (topical)	◆	◆	◆	◆	◆
Clobetasone (topical)	◆	◆	◆	◆	◆
Dexamethasone >16 mg	▲	◆	■	●	■
Dexamethasone ≤16 mg	▲	◆	■	▲	◆
Fludrocortisone	▲	◆	●	◆	◆
Flunisolide	▲	◆	●	◆	◆
Fluticasone	▲	◆	●	◆	◆
Hydrocortisone (topical)	◆	◆	◆	◆	◆
Methylprednisolone	▲	◆	●	◆	◆
Mometasone	▲	◆	●	◆	◆
Prednicarbate	◆	◆	●	◆	◆
Prednisone	▲	◆	●	◆	▲
Triamcinolone	▲	◆	●	◆	◆
<b>Urological Agents</b>					
Alfuzosin	◆	■	◆	◆	■
Desmopressin	◆	◆	◆	◆	◆
Dutasteride	◆	◆	◆	◆	◆
Finasteride	◆	◆	◆	◆	◆
Mirabegron	◆	▲	◆	◆	▲
Sildenafil	◆	◆	◆	◆	■
Sildenafil	◆	■	◆	◆	■
Tamsulosin	◆	◆	◆	◆	◆
Tolterodine	◆	■	◆	◆	■
Trospium	◆	◆	◆	◆	◆

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**Key to symbols**

●	These drugs should not be coadministered
■	Potential clinically significant interaction that is likely to require additional 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

**Notes**

- Further information is available at [www.hep-druginteractions.org](http://www.hep-druginteractions.org)
- Predicted interactions are based on known metabolic pathways and routes of clearance.
- Caution is required in patients with hepatic impairment as this may also increase drug levels and require dose modification.
- Where advice differs between countries, the charts reflect the more cautious option.

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