

Interactions with HCC Therapies

Charts revised December 2024. Full information available at 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
Anaesthetics and Muscle Relaxants					
Bupivacaine	◆	◆	◆	▲	▲
Cisatracurium	◆	◆	◆	◆	◆
Desflurane	◆	◆	◆	◆	◆
Dexmedetomidine	◆	■	◆	◆	■
Ephedrine	◆	▲	◆	▲	◆
Etidocaine	◆	◆	◆	◆	◆
Halothane	◆	◆	◆	◆	◆
Isoflurane	◆	■	◆	◆	■
Ketamine	◆	◆	◆	◆	◆
Nitrous oxide	◆	◆	◆	◆	◆
Propofol	◆	■	◆	■	■
Remifentanyl	◆	◆	◆	◆	◆
Rocuronium	◆	◆	◆	◆	▲
Sevoflurane	◆	■	◆	◆	■
Tetracaine	◆	◆	◆	◆	◆
Thiopental	◆	◆	◆	◆	◆
Tizanidine	◆	▲	◆	◆	▲
Analgesics					
Acetoclofenac	◆	◆	◆	◆	◆
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
Anthelmintics					
Albendazole	◆	◆	◆	◆	◆
Ivermectin	◆	◆	◆	◆	◆
Nicosamide	◆	◆	◆	◆	◆
Oxamniquine	◆	◆	◆	◆	◆
Praziquantel	◆	◆	◆	◆	◆
Pyrantel	◆	◆	◆	◆	◆
Antiarrhythmics					
Amiodarone	◆	■	◆	▲	■
Bepridil	◆	■	◆	◆	■
Digoxin	◆	◆	◆	◆	■
Disopyramide	◆	■	◆	◆	■
Dofetilide	◆	■	◆	◆	■
Dronedarone	◆	■	◆	●	■
Flecainide	◆	■	◆	◆	■
Lidocaine (Lignocaine)	◆	◆	◆	◆	◆
Mexiletine	◆	◆	◆	◆	◆
Propafenone	◆	●	◆	◆	●
Quinidine	◆	■	◆	▲	■
Vernakalant	◆	■	◆	◆	■
Antibacterials					
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	◆	◆	◆	◆	◆

For personal use only. Not for distribution.

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
- 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.

© Liverpool Drug Interactions Group,
 Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.
 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 HCC Therapies

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
Antibacterials continued					
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	◆	◆	◆	◆	◆
Anticoagulant, Anti-platelet and Fibrinolytic					
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
Anticonvulsants					
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	◆	◆	◆	◆	◆
Antidepressants					
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	◆	◆	◆	◆	◆

For personal use only. Not for distribution.

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
- 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.

© Liverpool Drug Interactions Group,
 Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.
 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 HCC Therapies

Charts revised December 2024. Full information available at 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
Antidiabetics					
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	◆	◆	◆	◆	▲
Antifungals					
Amphotericin B	◆	▲	▲	▲	■
Anidulafungin	◆	◆	◆	◆	◆
Caspofungin	◆	◆	◆	◆	◆
Clotrimazole (pessary)	◆	◆	◆	◆	◆
Clotrimazole (topical)	◆	◆	◆	◆	◆
Fluconazole	◆	■	◆	●	■
Flucytosine	◆	▲	▲	▲	▲
Griseofulvin	◆	◆	◆	◆	◆
Isavuconazole	◆	◆	◆	●	■
Itraconazole	◆	■	◆	●	■
Ketoconazole	◆	■	◆	●	■
Miconazole	◆	◆	◆	◆	◆
Nystatin	◆	◆	◆	◆	◆
Posaconazole	◆	■	◆	●	■
Terbinafine	◆	◆	◆	◆	■
Voriconazole	◆	■	◆	●	■
Antithrombotics					
Avatrombopag	▲	◆	◆	◆	◆
Eltrombopag	▲	◆	◆	■	▲
Tranexamic acid	◆	◆	◆	◆	◆
Antihistamines					
Astemizole	◆	■	◆	◆	■
Bilastine	◆	◆	◆	◆	◆
Cetirizine	◆	◆	◆	◆	◆
Chlorphenamine	◆	◆	◆	◆	◆
Desloratadine	◆	◆	◆	◆	◆
Diphenhydramine	◆	▲	◆	◆	▲
Doxylamine	◆	◆	◆	◆	◆
Ebastine	◆	◆	◆	◆	◆
Fexofenadine	◆	◆	◆	◆	▲
Hydroxyzine	◆	●	◆	◆	●
Levocetirizine	◆	◆	◆	◆	◆
Loratadine	◆	◆	◆	◆	◆
Promethazine	◆	■	◆	◆	■
Terfenadine	◆	●	◆	◆	●

	Atezo + Bez	LEN	PEM	REG	SOR
Antimigraine Agents					
Almotriptan	◆	◆	◆	◆	◆
Dihydroergotamine	◆	◆	◆	◆	◆
Eletriptan	◆	◆	◆	◆	◆
Eptinezumab	◆	◆	◆	◆	◆
Erenumab	◆	◆	◆	◆	◆
Ergotamine	◆	◆	◆	◆	◆
Fremanezumab	◆	◆	◆	◆	◆
Frovatriptan	◆	◆	◆	◆	◆
Galcanezumab	◆	◆	◆	◆	◆
Methylergonovine	◆	◆	◆	◆	◆
Naratriptan	◆	◆	◆	◆	◆
Pizotifen	◆	◆	◆	◆	◆
Rizatriptan	◆	◆	◆	◆	◆
Sumatriptan	◆	◆	◆	◆	◆
Zolmitriptan	◆	◆	◆	◆	◆
Antiprotozoals					
Amodiaquine	◆	◆	◆	◆	◆
Artemether	◆	●	◆	◆	●
Artemisinin	◆	●	◆	◆	●
Artesunate	◆	●	◆	◆	●
Atovaquone	◆	◆	■	◆	◆
Chloroquine	◆	●	◆	◆	■
Dihydroartemisinin	◆	◆	◆	◆	●
Doxycycline	◆	◆	◆	◆	◆
Halofantrine	◆	■	◆	◆	■
Hydroxychloroquine	◆	■	◆	◆	■
Lumefantrine	◆	●	◆	◆	●
Mefloquine	◆	■	◆	◆	■
Nitazoxanide	◆	◆	◆	◆	◆
Pentamidine	◆	■	◆	◆	■
Primaquine	◆	■	◆	◆	■
Proguanil	◆	◆	◆	◆	◆
Pyrimethamine	◆	◆	◆	◆	◆
Quinine	◆	■	◆	◆	■
Sodium stibogluconate	◆	■	◆	◆	■
Sulfadoxine	◆	◆	◆	◆	◆
Antipsychotics/neuroleptics					
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	◆	●	◆	◆	●

For personal use only. Not for distribution.

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
- 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.

© Liverpool Drug Interactions Group,
 Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.
 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 HCC Therapies

Charts revised December 2024. Full information available at www.hep-druginteractions.org

Page 4 of 6

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

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

For personal use only. Not for distribution.

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
- 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.

© Liverpool Drug Interactions Group,
 Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.

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 HCC Therapies

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.

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	◆	■	◆	●	●
Epcoritamab	▲	▲	▲	▲	◆
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	▲	◆	●	◆	◆
Tepotinib	◆	■	◆	◆	■
Tisotumab vedotin	▲	▲	▲	▲	▲
Tivozanib	■	■	▲	▲	■
Trametinib	◆	◆	◆	◆	◆
Trastuzumab	▲	▲	▲	▲	◆
Trastuzumab deruxtecan	▲	▲	▲	▲	▲
Trastuzumab emtansine	▲	▲	▲	▲	◆
Trifluridine/tipiracil	▲	▲	▲	▲	▲
Vinblastine	▲	◆	■	▲	◆
Vincristine	▲	◆	■	▲	◆
Vinorelbine	◆	◆	■	◆	▲

For personal use only. Not for distribution.

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
- 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.

© Liverpool Drug Interactions Group,
 Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.
 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 HCC Therapies

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
Contraceptives					
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	◆	◆	◆	◆	◆
Erectile Dysfunction Agents					
Sildenafil	◆	◆	◆	◆	◆
Tadalafil	◆	◆	◆	◆	◆
Vardenafil	◆	◆	◆	◆	◆
Yohimbine	◆	◆	◆	◆	◆

	Atezo + Bez	LEN	PEM	REG	SOR
Gastrointestinal Agents					
Aluminium hydroxide	◆	◆	◆	◆	◆
Alverine citrate	◆	◆	◆	◆	◆
Antacids	◆	◆	◆	◆	◆
Aprepitant	◆	◆	◆	■	◆
Bisacodyl	◆	◆	◆	◆	◆
Bismuth subsalicylate	◆	◆	◆	◆	◆
Cimetidine	◆	◆	◆	▲	◆
Cisapride	◆	■	◆	◆	■
Cyclizine	◆	◆	◆	◆	◆
Dantron	◆	◆	◆	◆	◆
Docusate 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	◆	■	◆	▲	■
HCC Therapies					
Atezolizumab + bevacizumab		▲	▲	▲	▲
Lenvatinib	▲		▲	▲	▲
Pembrolizumab	▲	▲		▲	▲
Regorafenib	▲	▲	▲		■
Sorafenib	▲	▲	▲	■	
Hepatitis B Drugs					
Adefovir	◆	◆	◆	◆	◆
Entecavir	◆	◆	◆	◆	◆
Lamivudine	◆	◆	◆	◆	◆
Peginterferon alfa-2a	■	▲	▲	▲	▲
Peginterferon alfa-2b	■	▲	▲	▲	▲
Ribavirin	◆	▲	■	▲	▲
Telbivudine	◆	◆	◆	◆	◆
Tenofovir alafenamide (TAF)	◆	◆	◆	◆	▲
Tenofovir-DF	◆	◆	◆	◆	▲
Hepatitis C Drugs					
Daclatasvir	◆	◆	◆	◆	◆
Elbasvir/Grazoprevir	◆	◆	◆	▲	■
Glecaprevir/Pibrentasvir	◆	◆	◆	▲	◆
Ledipasvir/Sofosbuvir	◆	◆	◆	■	◆
OBV/PTV/r	◆	◆	◆	●	■
OBV/PTV/r + Dasabuvir	◆	◆	◆	●	■
Ravidasvir	◆	◆	◆	■	◆
Ribavirin	◆	▲	■	▲	▲
Sofosbuvir (SOF)	◆	◆	◆	◆	◆
SOF/Velpatasvir	◆	◆	◆	■	◆
SOF/Velpatasvir/Voxilaprevir	◆	◆	◆	■	◆
Hepatitis D Entry Inhibitor					
Bulevirtide	◆	◆	◆	◆	◆

For personal use only. Not for distribution.

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
- 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.

© Liverpool Drug Interactions Group,
 Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.

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 HCC Therapies

Charts revised December 2024. Full information available at 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
Herbals/Supplements/Vitamins					
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	◆	◆	◆	◆	◆
HIV Drugs					
Entry/Integrase Inhibitors					
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	◆	◆	◆	▲	◆
NNRTIs					
Dapivirine	◆	◆	◆	◆	◆
Doravirine	◆	◆	◆	◆	◆
Doravirine/3TC/TDF	◆	◆	◆	◆	▲
Efavirenz	◆	■	◆	●	●
Etravirine	◆	◆	◆	◆	◆
Nevirapine	◆	◆	◆	●	●
Rilpivirine	◆	▲	◆	◆	▲
Rilpivirine/FTC/TAF	◆	▲	◆	◆	▲
NRTIs					
Abacavir	◆	◆	◆	◆	◆
Didanosine	◆	◆	◆	◆	◆
Emtricitabine (FTC)	◆	◆	◆	◆	◆
Emtricitabine + TAF	◆	◆	◆	◆	▲
Emtricitabine + TDF	◆	◆	◆	◆	◆
Lamivudine	◆	◆	◆	◆	◆
Stavudine	◆	◆	◆	◆	◆
Tenofovir-DF	◆	◆	◆	◆	▲
Zidovudine	▲	▲	◆	▲	▲

For personal use only. Not for distribution.

	Atezo + Bez	LEN	PEM	REG	SOR
HIV Drugs continued					
Protease Inhibitors					
Atazanavir alone	◆	■	◆	●	■
Atazanavir/cobicistat	◆	■	◆	●	■
Atazanavir + ritonavir	◆	■	◆	●	■
Darunavir/cobicistat	◆	◆	◆	●	◆
Darunavir/cobi/FTC/TAF	◆	◆	◆	●	◆
Darunavir + ritonavir	◆	◆	◆	●	■
Fosamprenavir	◆	◆	◆	●	■
Indinavir	◆	◆	◆	●	◆
Lopinavir	◆	■	◆	●	■
Ritonavir	◆	◆	◆	●	■
Tipranavir	◆	■	◆	●	■
Hypertension/Heart Failure Agents					
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	◆	▲	◆	▲	◆
Spirolactone	◆	▲	◆	▲	◆
Tadalafil	◆	▲	◆	▲	◆
Telmisartan	◆	▲	◆	▲	◆
Torsemide	◆	▲	◆	▲	◆
Trandolapril	◆	▲	◆	▲	◆
Treprostinil	◆	▲	◆	▲	◆
Valsartan	◆	▲	◆	▲	◆
Xipamide	◆	▲	◆	▲	◆
Zofenopril	◆	▲	◆	▲	◆

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
- 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.

© Liverpool Drug Interactions Group,
 Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.

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 HCC Therapies

Charts revised December 2024. Full information available at 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
Illicit/Recreational					
Alcohol	◆	◆	◆	◆	◆
Amphetamine	◆	◆	◆	◆	◆
Cannabis	◆	◆	◆	◆	◆
Carfentanil	◆	◆	◆	◆	◆
Cocaine	◆	●	◆	◆	●
Ecstasy (MDMA)	◆	●	◆	◆	●
Etizolam	◆	◆	◆	◆	◆
Fentanyl (Recreational)	◆	◆	◆	◆	◆
GHB (Gamma-hydroxybutyrate)	◆	◆	◆	◆	◆
Heroin	◆	◆	◆	◆	◆
LSD (Lysergic acid diethylamide)	◆	◆	◆	◆	◆
Mephedrone	◆	◆	◆	◆	◆
Methamphetamine	◆	◆	◆	◆	◆
Nitazenes	◆	◆	◆	▲	●
Nicotine	◆	◆	◆	◆	◆
Phencyclidine (PCP)	◆	◆	◆	◆	◆
Xylazine	◆	■	◆	▲	■
Immunosuppressants					
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	▲	◆	◆	◆	◆
Lipid Lowering Agents					
Alirocumab	◆	◆	◆	◆	◆
Atorvastatin	◆	◆	◆	■	■
Bempedoic acid	◆	◆	◆	◆	◆
Bezafibrate	◆	◆	◆	◆	◆
Evolocumab	◆	◆	◆	◆	◆
Ezetimibe	◆	◆	◆	▲	▲
Fenofibrate	◆	◆	◆	◆	◆
Fish oils	◆	◆	◆	◆	◆
Fluvastatin	◆	◆	◆	■	◆
Gemfibrozil	◆	◆	◆	◆	◆
Icosapent ethyl	◆	◆	◆	◆	◆
Lovastatin	◆	◆	◆	◆	◆
Pitavastatin	◆	◆	◆	◆	▲
Pravastatin	◆	◆	◆	◆	▲
Rosuvastatin	◆	◆	◆	■	▲
Simvastatin	◆	◆	◆	■	▲

	Atezo + Bez	LEN	PEM	REG	SOR
Other Drugs					
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	◆	◆	◆	◆	◆
Eliglustat	◆	▲	◆	◆	▲
Emicizumab	◆	◆	◆	◆	◆
Epoetin alfa	◆	◆	◆	◆	◆
Etelcalcetide	◆	◆	◆	◆	◆
Faricimab	◆	◆	◆	◆	◆
Febuxostat	◆	◆	◆	◆	◆
Filgrastim	◆	◆	◆	◆	◆
Filbanserin	◆	◆	◆	◆	◆
Gadopentetate (gadolinium)	◆	◆	◆	◆	◆
Glucose monohydrate (IV)	◆	◆	◆	◆	◆
Glycerol phenylbutyrate	◆	◆	◆	◆	◆
Goserelin acetate	◆	■	◆	◆	■
Guanfacine	◆	●	◆	◆	●
Influenza vaccine	◆	◆	◆	◆	◆
Interferon beta	◆	▲	▲	▲	▲

For personal use only. Not for distribution.

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
- 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.

© Liverpool Drug Interactions Group,
 Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.
 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 HCC Therapies

Charts revised December 2024. Full information available at 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
Other Drugs Continued					
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
Oxytocics					
Ergometrine (ergonovine)	◆	◆	◆	◆	◆
Mifepristone	◆	◆	◆	◆	◆
Misoprostol	◆	◆	◆	◆	◆
Parkinsonism Agents					
Benzotropine	◆	◆	◆	◆	◆
Carbidopa	◆	◆	◆	◆	◆
Orphenadrine	◆	◆	◆	◆	◆
Pramipexole	◆	◆	◆	◆	◆
Procyclidine	◆	◆	◆	◆	◆
Rasagiline	◆	◆	◆	◆	◆
Ropinirole	◆	◆	◆	◆	◆
PBC Agents					
Obeticholic acid	◆	◆	◆	◆	◆
Ursodeoxycholic acid	◆	◆	◆	◆	◆
Steroids					
Beclometasone	▲	◆	●	◆	◆
Betamethasone	▲	◆	●	◆	◆
Budesonide	▲	◆	●	◆	◆
Ciclesonide	▲	◆	●	◆	◆
Clobetasol (topical)	◆	◆	◆	◆	◆
Clobetasone (topical)	◆	◆	◆	◆	◆
Dexamethasone >16 mg	▲	◆	■	●	■
Dexamethasone ≤16 mg	▲	◆	■	▲	◆
Fludrocortisone	▲	◆	●	◆	◆
Flunisolide	▲	◆	●	◆	◆
Fluticasone	▲	◆	●	◆	◆
Hydrocortisone (topical)	◆	◆	◆	◆	◆
Methylprednisolone	▲	◆	●	◆	◆
Mometasone	▲	◆	●	◆	◆
Prednicarbate	◆	◆	●	◆	◆
Prednisone	▲	◆	●	◆	▲
Triamcinolone	▲	◆	●	◆	◆
Urological Agents					
Alfuzosin	◆	■	◆	◆	■
Desmopressin	◆	◆	◆	◆	◆
Dutasteride	◆	◆	◆	◆	◆
Finasteride	◆	◆	◆	◆	◆
Mirabegron	◆	▲	◆	◆	▲
Sildenafil	◆	◆	◆	◆	■
Sildenafil	◆	■	◆	◆	■
Tamsulosin	◆	◆	◆	◆	◆
Tolterodine	◆	■	◆	◆	■
Trospium	◆	◆	◆	◆	◆

For personal use only. Not for distribution.

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
- 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.

© Liverpool Drug Interactions Group, Liverpool Drug Interactions Group, University of Liverpool, 3rd Floor William Henry Duncan Building, 6 West Derby Street, Liverpool, L7 8TX.

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.