



ADVISORY

RECOMMENDATIONS FOR INTERACTIONS WITH EXPERIMENTAL COVID-19 THERAPIES.

Date: 6th of May 2020.

Target Audience:

- Provincial Health Departments;
- Healthcare Professionals; and
- Principle Investigators of approved clinical trials.

Background:

There are no drugs or other therapeutics presently approved in the world that is used to prevent or treat COVID-19. Current clinical management includes infection prevention and control measures and supportive care, including supplemental oxygen and mechanical ventilatory support when indicated. However, across the world different healthcare professionals and investigators are using different investigational drugs in COVID-19 to determine their effectiveness in these patients. These investigational drugs are used across the globe under the strict supervision of healthcare professionals as a part of clinical trials. COVID-19 patients may also be using co-medications for other co-morbid conditions and diseases when they are treated with these drugs; therefore, there are chances of drug interaction. Liverpool Drug Interaction Group (based at the University of Liverpool, UK) in collaboration with University Hospital of Basel (Switzerland) and Radboud UMC (Netherlands), on 9th April, 2020 issued recommendations for interactions with experimental COVID-19 therapies for the guidance of healthcare professionals in order to minimize harm to the patient.

Division of Pharmacy Services, Drug Regulatory Authority of Pakistan through this advisory consider it appropriate to inform provincial health departments, healthcare professionals and principle investigators of approved clinical trials in Pakistan about the interaction of the COVID-19 investigational drugs with other medications and urge these stakeholders to look for possible interaction before initiation of therapy.

Enclosure:

1. At-a-glance summary of interactions with experimental COVID-19 therapies, University of Liver pool (Enclosed)



Interactions with Experimental COVID-19 Therapies

Charts updated 9 April 2020

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Please check www.covid19-druginteractions.org for updates.

Please note that if a drug is not listed it cannot automatically be assumed it is safe to coadminister. No recommendation to use experimental therapy for COVID-19 is made. Drug interaction data for many agents are limited or absent; therefore, risk-benefit assessment for any individual patient rests with prescribers.

	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Anaesthetics & Muscle Relaxants									
Alcuronium	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bupivacaine	■	■	◆	◆	◆	◆	◆	▲	◆
Cisatracurium	◆	◆	◆	◆	◆	◆	◆	◆	◆
Desflurane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dexmedetomidine	◆	■	◆	◆	■	■	◆	◆	◆
Enflurane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ephedrine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Etidocaine	■	■	◆	◆	◆	◆	◆	▲	◆
Halothane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Isoflurane	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ketamine	■	■	◆	◆	◆	◆	◆	▲	◆
Minaxolone	■	■	◆	◆	◆	◆	◆	◆	◆
Nitrous oxide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Propofol	◆	■	◆	◆	■	■	◆	◆	◆
Rocuronium	■	■	◆	◆	◆	◆	◆	◆	◆
Sevoflurane	◆	■	◆	◆	■	■	◆	◆	◆
Sufentanil	■	■	◆	◆	◆	◆	◆	▲	◆
Suxamethonium (succinylcholine)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tetracaine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Thiopental	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tizanidine	◆	■	◆	◆	■	■	◆	◆	◆
Vecuronium	◆	◆	◆	◆	◆	◆	◆	◆	◆
Analgesics									
Alfentanil	■	■	◆	◆	◆	◆	◆	▲	◆
Aspirin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Buprenorphine	■	■	◆	◆	■	■	◆	▲	◆
Celecoxib	◆	◆	◆	◆	◆	◆	◆	◆	◆
Codeine	◆	▲	◆	◆	◆	◆	◆	◆	◆
Dextropropoxyphene	●	●	◆	◆	◆	◆	◆	▲	◆
Diamorphine (diacetylmorphine)	■	■	◆	◆	◆	◆	◆	◆	◆
Diclofenac	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dihydrocodeine	▲	▲	◆	◆	◆	◆	◆	◆	◆
Fentanyl	■	■	◆	◆	◆	◆	◆	▲	◆
Hydrocodone	■	■	◆	◆	■	■	◆	◆	◆
Hydromorphone	◆	■	◆	◆	◆	◆	◆	◆	◆
Ibuprofen	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mefenamic acid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Metamizole	■	■	■	◆	●	●	●	●	●
Methadone	◆	■	◆	◆	■	■	◆	◆	◆
Morphine	■	■	◆	◆	◆	◆	◆	◆	◆
Naproxen	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nimesulide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxycodone	■	■	◆	◆	◆	◆	◆	▲	◆
Paracetamol (Acetaminophen)	◆	◆	◆	■	◆	◆	◆	◆	◆
Pethidine (Meperidine)	▲	▲	◆	◆	◆	◆	◆	◆	◆
Piroxicam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Remifentanyl	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tapentadol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tramadol	▲	■	◆	◆	■	■	◆	◆	◆
Antiarrhythmics									
Amiodarone	●	●	◆	◆	●	●	◆	▲	◆
Bepidil	●	●	◆	◆	●	●	◆	◆	◆
Disopyramide	●	●	◆	◆	■	■	◆	◆	◆
Dofetilide	●	●	◆	◆	■	■	◆	◆	◆
Flecainide	●	●	◆	◆	●	●	◆	◆	◆
Lidocaine (Lignocaine)	■	■	◆	◆	◆	◆	◆	◆	◆
Mexiletine	◆	■	◆	◆	●	●	◆	◆	◆
Propafenone	■	■	◆	◆	◆	◆	◆	◆	◆
Quinidine	●	■	◆	◆	■	■	◆	▲	◆

	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Antibacterials									
Amikacin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Amoxicillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ampicillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Azithromycin	■	■	◆	◆	■	■	◆	◆	◆
Bedaquiline	■	■	◆	◆	■	■	◆	◆	◆
Capreomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cefalexin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cefazolin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cefixime	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cefotaxime	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ceftazidime	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ceftriaxone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chloramphenicol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ciprofloxacin	◆	■	◆	◆	■	■	◆	◆	◆
Clarithromycin	■	■	◆	◆	■	■	◆	◆	◆
Clavulanic acid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clindamycin	■	■	◆	◆	◆	◆	◆	◆	◆
Clofazimine	◆	■	◆	◆	■	■	◆	◆	◆
Cloxacillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cycloserine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dapsone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Delamanid	■	■	◆	◆	■	■	◆	◆	◆
Doxycycline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ertapenem	◆	◆	◆	◆	◆	◆	◆	◆	◆
Erythromycin	■	■	◆	◆	■	■	◆	◆	◆
Ethambutol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ethionamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flucloxacillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gentamicin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Imipenem/Cilastatin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Isoniazid	◆	◆	◆	◆	◆	◆	▲	◆	◆
Kanamycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levofloxacin	◆	■	◆	◆	■	■	◆	◆	◆
Linezolid	◆	◆	◆	◆	◆	◆	■	■	■
Meropenem	◆	◆	◆	◆	◆	◆	◆	◆	◆
Metronidazole	◆	■	◆	◆	◆	◆	◆	◆	◆
Moxifloxacin	■	■	◆	◆	■	■	◆	◆	◆
Nitrofurantoin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ofloxacin	◆	■	◆	◆	■	■	◆	◆	◆
Para-aminosalicylic acid	◆	◆	◆	◆	◆	◆	◆	◆	◆
Penicillins	◆	◆	◆	◆	◆	◆	◆	◆	◆
Piperacillin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pyrazinamide	◆	◆	◆	■	◆	◆	◆	◆	◆
Rifabutin	■	■	■	◆	■	■	◆	◆	◆
Rifampicin	●	●	●	◆	●	●	◆	◆	◆
Rifapentine	●	■	●	◆	●	●	◆	◆	◆
Rifaximin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Spectinomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Streptomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sulfadiazine	◆	▲	◆	◆	◆	◆	◆	◆	◆
Tazobactam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Telithromycin	■	■	◆	◆	■	■	◆	◆	◆
Tetracyclines	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tinidazole	▲	■	◆	◆	◆	◆	◆	◆	◆
Trimethoprim/Sulfamethoxazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vancomycin	◆	◆	◆	◆	◆	◆	◆	◆	◆

Key to abbreviations

ATV	Atazanavir	CLQ	Chloroquine
LPV/r	Lopinavir/ritonavir	HCLQ	Hydroxychloroquine
RDV	Remdesivir	RBV	Ribavirin
FAVI	Favipiravir	TCZ	Tocilizumab
		IFN-β	Interferon beta

Key to symbols

●	These drugs should not be coadministered
■	Potential interaction - may require close 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

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	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Anti-coagulant, Anti-platelet and Fibrinolytic									
Acenocoumarol	◆	◆	◆	◆	◆	◆	◆	▲	◆
Apixaban	●	●	◆	◆	▲	▲	◆	▲	◆
Argatroban	◆	◆	◆	◆	◆	◆	◆	◆	◆
Aspirin (anti-platelet)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Betrixaban	■	■	◆	◆	■	■	◆	◆	◆
Clopidogrel	●	●	◆	◆	◆	◆	◆	▲	◆
Dabigatran	●	■	◆	◆	■	■	◆	◆	◆
Dalteparin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dipyridamole	■	■	◆	◆	◆	◆	◆	◆	◆
Edoxaban	■	■	◆	◆	■	■	◆	◆	◆
Eltrombopag	◆	■	◆	◆	◆	◆	◆	◆	◆
Enoxaparin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fondaparinux	◆	◆	◆	◆	◆	◆	◆	◆	◆
Heparin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Phenprocoumon	■	■	◆	◆	◆	◆	◆	▲	◆
Prasugrel	◆	◆	◆	◆	◆	◆	◆	▲	◆
Rivaroxaban	●	●	◆	◆	▲	▲	◆	▲	◆
Streptokinase	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ticagrelor	●	●	◆	◆	◆	◆	◆	▲	◆
Warfarin	■	■	◆	◆	◆	◆	■	▲	◆
Anticonvulsants									
Carbamazepine	●	■	●	◆	●	●	◆	▲	◆
Clonazepam	■	■	◆	◆	◆	◆	◆	◆	◆
Eslicarbazepine	■	■	■	◆	■	■	◆	◆	◆
Ethosuximide	■	■	◆	◆	◆	◆	◆	◆	◆
Gabapentin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lacosamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lamotrigine	◆	■	◆	◆	◆	◆	◆	◆	◆
Levetiracetam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxcarbazepine	■	■	■	◆	■	■	◆	◆	◆
Perampanel	■	■	◆	◆	◆	◆	◆	◆	◆
Phenobarbital (Phenobarbitone)	●	■	●	◆	●	●	◆	▲	◆
Phenytoin	●	■	●	◆	●	●	◆	▲	◆
Pregabalin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Primidone	●	■	●	◆	●	●	◆	▲	◆
Retigabine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rufinamide	■	■	■	◆	■	■	◆	◆	◆
Sultiame	■	■	◆	◆	◆	◆	◆	◆	◆
Tiagabine	■	■	◆	◆	◆	◆	◆	◆	◆
Topiramate	◆	◆	◆	◆	◆	◆	◆	◆	◆
Valproate (Divalproex)	◆	■	◆	◆	◆	◆	◆	◆	◆
Vigabatrin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zonisamide	◆	◆	◆	◆	◆	◆	◆	◆	◆

	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Antidepressants									
Agomelatine	◆	■	◆	◆	◆	◆	◆	◆	◆
Amitriptyline	◆	■	◆	◆	■	■	◆	◆	◆
Bupropion	◆	◆	◆	◆	◆	◆	◆	◆	◆
Citalopram	■	■	◆	◆	■	■	◆	◆	◆
Clomipramine	■	■	◆	◆	◆	◆	◆	◆	◆
Desipramine	◆	■	◆	◆	■	■	◆	◆	◆
Doxepin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Duloxetine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Escitalopram	■	■	◆	◆	■	■	◆	◆	◆
Fluoxetine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fluvoxamine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Imipramine	■	■	◆	◆	■	■	◆	◆	◆
Lithium	◆	■	◆	◆	■	■	◆	◆	◆
Maprotiline	◆	■	◆	◆	■	■	◆	◆	◆
Mianserin	◆	■	◆	◆	■	■	◆	◆	◆
Milnacipran	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mirtazapine	■	■	◆	◆	■	■	◆	◆	◆
Nefazodone	■	■	◆	◆	◆	◆	◆	◆	◆
Nortriptyline	◆	■	◆	◆	■	■	◆	◆	◆
Paroxetine	■	■	◆	◆	◆	◆	◆	◆	◆
Phenelzine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Reboxetine	■	■	◆	◆	◆	◆	◆	◆	◆
Sertraline	◆	■	◆	◆	◆	◆	◆	◆	◆
St John's wort	●	●	●	◆	●	●	◆	◆	◆
Tranlycypromine	■	■	◆	◆	◆	◆	◆	◆	◆
Trazodone	■	■	◆	◆	◆	◆	◆	◆	◆
Trimipramine	◆	■	◆	◆	■	■	◆	◆	◆
Venlafaxine	◆	■	◆	◆	■	■	◆	◆	◆
Vortioxetine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Anti-diabetics									
Acarbose	◆	◆	◆	◆	◆	◆	◆	◆	◆
Canagliflozin	◆	■	◆	◆	◆	◆	◆	◆	◆
Dapagliflozin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dulaglutide	■	◆	◆	◆	◆	◆	◆	◆	◆
Empagliflozin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Exanatide	■	◆	◆	◆	◆	◆	◆	◆	◆
Glibenclamide (Glyburide)	■	■	◆	◆	◆	◆	◆	◆	◆
Gliclazide	◆	■	◆	◆	◆	◆	◆	◆	◆
Glimepiride	◆	■	◆	◆	◆	◆	◆	◆	◆
Glipizide	◆	■	◆	◆	◆	◆	◆	◆	◆
Insulin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Linagliptin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Liraglutide	■	◆	◆	◆	◆	◆	◆	◆	◆
Metformin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nateglinide	■	■	◆	◆	◆	◆	◆	◆	◆
Pioglitazone	▲	▲	◆	■	◆	◆	◆	◆	◆
Repaglinide	●	■	◆	■	◆	◆	◆	◆	◆
Rosiglitazone	◆	▲	◆	■	◆	◆	◆	◆	◆
Saxagliptin	■	■	◆	◆	◆	◆	◆	◆	◆
Sitagliptin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tolbutamide	◆	■	◆	◆	◆	◆	◆	◆	◆
Vildagliptin	◆	◆	◆	◆	◆	◆	◆	◆	◆

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Antifungals									
Amphotericin B	◆	◆	◆	◆	◆	◆	◆	◆	◆
Anidulafungin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Caspofungin	▲	◆	◆	◆	◆	◆	◆	◆	◆
Fluconazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flucytosine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Griseofulvin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Isavuconazole	◆	◆	◆	◆	▲	▲	◆	◆	◆
Itraconazole	◆	◆	◆	◆	▲	▲	◆	◆	◆
Ketoconazole	◆	◆	◆	◆	▲	▲	◆	◆	◆
Micafungin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Miconazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nystatin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Posaconazole	◆	◆	◆	◆	▲	▲	◆	◆	◆
Terbinafine	▲	▲	◆	◆	◆	◆	◆	◆	◆
Voriconazole	◆	◆	◆	◆	▲	▲	◆	◆	◆
Antipsychotics/Neuroleptics									
Amisulpride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Aripiprazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Asenapine	▲	◆	◆	◆	◆	◆	◆	◆	◆
Chlorpromazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clozapine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fluphenazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Haloperidol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Iloperidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levomepromazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Olanzapine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Paliperidone	▲	▲	◆	◆	◆	◆	◆	◆	◆
Perazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Periciazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Perphenazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pimozide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pipotiazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Quetiapine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Risperidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sulpiride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Thioridazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tiapride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ziprasidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zotepine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zuclopenthixol	◆	◆	◆	◆	◆	◆	◆	◆	◆

	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Antivirals - Covid									
Atazanavir	◆	★	◆	◆	◆	◆	◆	◆	◆
Lopinavir/ritonavir	★	◆	◆	◆	◆	◆	◆	◆	◆
Remdesivir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Favipiravir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chloroquine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Hydroxychloroquine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ribavirin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tocilizumab	◆	◆	◆	◆	◆	◆	◆	◆	◆
Interferon beta	◆	◆	◆	◆	◆	◆	◆	◆	◆
Antivirals - HCV DAAs									
Elbasvir/Grazoprevir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Glecaprevir/Pibrentasvir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ledipasvir/Sofosbuvir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ombitasvir/Paritaprevir/r	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ombitasvir/Paritaprevir/r + Dasabuvir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sofosbuvir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sofosbuvir/Velpatasvir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sofosbuvir/Velpatasvir/Voxilaprevir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Antivirals - others									
Oseltamivir	◆	◆	◆	◆	◆	◆	◆	◆	◆
Anxiolytics/Hypnotics/Sedatives									
Alprazolam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bromazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Buspirone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chlordiazepoxide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clobazam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clorazepate	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Estazolam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flunitrazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flurazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Hydroxyzine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lorazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lormetazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Midazolam (oral)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Midazolam (parenteral)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Temazepam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Triazolam	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zaleplon	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zolpidem	◆	◆	◆	◆	◆	◆	◆	◆	◆
Zopiclone	◆	◆	◆	◆	◆	◆	◆	◆	◆

★ ATV and LPV/r are not intended to be combined for the treatment of COVID-19

Key to abbreviations

ATV	Atazanavir	CLQ	Chloroquine
LPV/r	Lopinavir/ritonavir	HCLQ	Hydroxychloroquine
RDV	Remdesivir	RBV	Ribavirin
FAVI	Favipiravir	TCZ	Tocilizumab
		IFN-β	Interferon beta

Key to symbols

◆	These drugs should not be coadministered
◆	Potential interaction - may require close 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

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	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Beta Blockers									
Atenolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bisoprolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Carvedilol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Metoprolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nebivolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxprenolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pindolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Propranolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Timolol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bronchodilators									
Acclidinium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Aminophylline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Formoterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Glycopyrronium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Indacaterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ipratropium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Montelukast	◆	◆	◆	◆	◆	◆	◆	◆	◆
Olodaterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Roflumilast	◆	◆	◆	◆	◆	◆	◆	◆	◆
Salbutamol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Salmeterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Theophylline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tiotropium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Umeclidinium bromide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vilanterol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Calcium Channel Blockers									
Amlodipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Diltiazem	◆	◆	◆	◆	◆	◆	◆	◆	◆
Felodipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nicardipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nifedipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nisoldipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Nitrendipine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Verapamil	◆	◆	◆	◆	◆	◆	◆	◆	◆

	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Contraceptives/HRT									
Desogestrel (COC)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Desogestrel (POP)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Drospirenone (COC)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Drospirenone (HRT)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dydrogesterone (HRT)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Estradiol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ethinylestradiol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Etonogestrel (implant)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Etonogestrel (vaginal ring)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gestodene (COC)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levonorgestrel (COC)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levonorgestrel (emergency contrac.)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levonorgestrel (HRT)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levonorgestrel (implant)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levonorgestrel (IUD)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Levonorgestrel (POP)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Medroxyprogesterone (depot inj.)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Medroxyprogesterone (oral)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Norelgestromin (patch)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Norethisterone (COC)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Norethisterone (HRT)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Norethisterone (IM depot)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Norethisterone(POP)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Norgestimate (COC)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Norgestrel (COC)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Norgestrel (HRT)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ulipristal	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gastrointestinal Agents									
Alosetron	◆	◆	◆	◆	◆	◆	◆	◆	◆
Antacids	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bisacodyl	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cimetidine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cisapride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Esomeprazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Famotidine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lactulose	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lansoprazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Loperamide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mesalazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Omeprazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Pantoprazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Prucalopride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Rabeprazole	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ranitidine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Senna	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gastrointestinal Agents (anti-emetics)									
Aprepitant	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dolasetron	◆	◆	◆	◆	◆	◆	◆	◆	◆
Domperidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dronabinol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Granisetron	◆	◆	◆	◆	◆	◆	◆	◆	◆
Metoclopramide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ondansetron	◆	◆	◆	◆	◆	◆	◆	◆	◆
Prochlorperazine	◆	◆	◆	◆	◆	◆	◆	◆	◆

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	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Hypertension / Heart Failure Agents									
Aliskiren	●	●	◆	◆	◆	◆	◆	◆	◆
Ambrisentan	■	■	◆	◆	◆	◆	◆	◆	◆
Amiloride	◆	◆	◆	◆	◆	◆	◆	◆	◆
Benazepril	■	◆	◆	◆	◆	◆	◆	◆	◆
Bendroflumethiazide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bosentan	●	■	■	◆	◆	◆	◆	◆	◆
Candesartan	◆	◆	◆	◆	◆	◆	◆	◆	◆
Captopril	◆	◆	◆	◆	◆	◆	◆	◆	◆
Chlortalidone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Cilazapril	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clonidine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Digoxin	■	■	◆	◆	■	■	◆	◆	◆
Dopamine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Doxazosin	■	■	◆	◆	◆	◆	◆	◆	◆
Enalapril	◆	◆	◆	◆	◆	◆	◆	◆	◆
Eplerenone	●	●	◆	◆	◆	◆	◆	◆	◆
Epoprostenol	◆	◆	◆	◆	◆	◆	◆	◆	◆
Eprosartan	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fosinopril	◆	▲	◆	◆	◆	◆	◆	◆	◆
Furosemide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Hydralazine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Hydrochlorothiazide	◆	◆	◆	◆	◆	◆	◆	◆	◆
Iloprost	◆	◆	◆	◆	◆	◆	◆	◆	◆
Indapamide	■	■	◆	◆	◆	◆	◆	◆	◆
Irbesartan	◆	▲	◆	◆	◆	◆	◆	◆	◆
Isosorbide dinitrate	■	■	◆	◆	◆	◆	◆	◆	◆
Ivabradine	●	●	◆	◆	◆	◆	◆	◆	◆
Labetalol	■	■	◆	◆	◆	◆	◆	◆	◆
Lacidipine	■	■	◆	◆	■	■	◆	◆	◆
Lercanidipine	●	●	◆	◆	◆	◆	◆	◆	◆
Lisinopril	◆	◆	◆	◆	◆	◆	◆	◆	◆
Losartan	◆	▲	◆	◆	◆	◆	◆	◆	◆
Macitentan	■	■	◆	◆	◆	◆	◆	◆	◆
Methyldopa	◆	◆	◆	◆	◆	◆	◆	◆	◆
Metolazone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Moxonidine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Olmesartan	◆	◆	◆	◆	◆	◆	◆	◆	◆
Perindopril	◆	◆	◆	◆	◆	◆	◆	◆	◆
Prazosin	■	■	◆	◆	◆	◆	◆	◆	◆
Quinapril	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ramipril	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ranolazine	●	●	◆	◆	◆	◆	◆	◆	◆
Riociguat	■	■	◆	◆	◆	◆	◆	◆	◆
Sacubitril	■	■	◆	◆	◆	◆	◆	◆	◆
Selexipag	◆	◆	◆	◆	◆	◆	◆	◆	◆
Sildenafil (PAH)	●	●	◆	◆	◆	◆	◆	◆	◆
Sodium nitroprusside	◆	◆	◆	◆	◆	◆	◆	◆	◆
Spironolactone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Tadalafil (PAH)	■	■	◆	◆	◆	◆	◆	◆	◆
Telmisartan	◆	◆	◆	◆	◆	◆	◆	◆	◆
Terazosin	■	■	◆	◆	◆	◆	◆	◆	◆
Torsemide	◆	▲	◆	◆	◆	◆	◆	◆	◆
Trandolapril	◆	◆	◆	◆	◆	◆	◆	◆	◆
Treprostinil	◆	◆	◆	■	◆	◆	◆	◆	◆
Valsartan	■	■	◆	◆	◆	◆	◆	◆	◆
Xipamide	◆	◆	◆	◆	◆	◆	◆	◆	◆

	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	RBV	TCZ	IFN-β
Immunosuppressants									
Adalimumab	◆	◆	◆	◆	■	■	■	●	■
Anti-thymocyte globulin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Azathioprine	◆	◆	◆	◆	■	■	■	■	■
Basiliximab	◆	◆	◆	◆	◆	◆	◆	●	◆
Belatacept	◆	◆	◆	◆	◆	◆	◆	◆	◆
Ciclosporin	■	■	◆	◆	■	■	◆	▲	◆
Mycophenolate	◆	■	◆	◆	◆	◆	◆	◆	◆
Pirfenidone	◆	■	◆	◆	◆	◆	◆	▲	◆
Sirolimus	●	●	◆	■	■	■	◆	▲	◆
Tacrolimus	■	■	◆	◆	■	■	◆	▲	◆
Inotropes & Vasopressors									
Adrenaline (Epinephrine)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Dobutamine	◆	◆	◆	◆	◆	◆	◆	◆	◆
Noradrenaline	◆	◆	◆	◆	◆	◆	◆	◆	◆
Vasopressin	◆	◆	◆	◆	◆	◆	◆	◆	◆
Lipid Lowering Agents									
Atorvastatin	■	■	◆	◆	◆	◆	◆	◆	◆
Bezafibrate	◆	◆	◆	◆	◆	◆	◆	◆	◆
Clofibrate	◆	◆	◆	◆	◆	◆	◆	◆	◆
Evolocumab	◆	◆	◆	◆	◆	◆	◆	●	◆
Ezetimibe	■	◆	◆	◆	◆	◆	◆	◆	◆
Fenofibrate	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fish oils	◆	◆	◆	◆	◆	◆	◆	◆	◆
Fluvastatin	▲	◆	◆	◆	◆	◆	◆	◆	◆
Gemfibrozil	◆	▲	◆	◆	◆	◆	◆	◆	◆
Lovastatin	●	●	◆	◆	◆	◆	◆	◆	◆
Pitavastatin	▲	◆	◆	◆	◆	◆	◆	◆	◆
Pravastatin	■	◆	◆	◆	◆	◆	◆	◆	◆
Rosuvastatin	■	■	◆	◆	◆	◆	◆	◆	◆
Simvastatin	●	●	◆	◆	◆	◆	◆	◆	◆
Steroids									
Beclometasone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Betamethasone	■	■	■	◆	◆	◆	◆	◆	◆
Budesonide	●	●	◆	◆	◆	◆	◆	◆	◆
Ciclesonide	■	■	◆	◆	◆	◆	◆	◆	◆
Clobetasol	■	■	◆	◆	◆	◆	◆	◆	◆
Dexamethasone	■	■	■	◆	◆	◆	◆	◆	◆
Fludrocortisone	■	■	◆	◆	◆	◆	◆	◆	◆
Flunisolide	■	■	◆	◆	◆	◆	◆	◆	◆
Fluocinolone	■	■	◆	◆	◆	◆	◆	◆	◆
Fluticasone	●	●	◆	◆	◆	◆	◆	◆	◆
Hydrocortisone (oral)	■	■	◆	◆	◆	◆	◆	◆	◆
Hydrocortisone (topical)	◆	◆	◆	◆	◆	◆	◆	◆	◆
Megestrol acetate	◆	◆	◆	◆	◆	◆	◆	◆	◆
Methylprednisolone	■	■	◆	◆	◆	◆	◆	◆	◆
Mometasone	●	●	◆	◆	◆	◆	◆	◆	◆
Nandrolone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Oxandrolone	◆	◆	◆	◆	◆	◆	◆	◆	◆
Prednisolone	■	■	◆	◆	◆	◆	◆	◆	◆
Prednisone	■	■	◆	◆	◆	◆	◆	◆	◆
Stanozolol	■	■	◆	◆	◆	◆	◆	◆	◆
Testosterone	■	■	◆	◆	◆	◆	◆	◆	◆
Triamcinolone	●	●	◆	◆	◆	◆	◆	◆	◆

Key to abbreviations

ATV	Atazanavir	CLQ	Chloroquine
LPV/r	Lopinavir/ritonavir	HCLQ	Hydroxychloroquine
RDV	Remdesivir	RBV	Ribavirin
FAVI	Favipiravir	TCZ	Tocilizumab
		IFN-β	Interferon beta

Key to symbols

●	These drugs should not be coadministered
■	Potential interaction - may require close 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