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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

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# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

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	· ·
	These drugs should not be coadministered
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# **ADHD Agents**

		Antivirals					Corticosteroids			Host-directed	
	ESV	MOL		NMV/r ≥10 days		DEX	HC	MP	BAR	TCZ	
Amphetamine mixed salts	$\leftrightarrow$	$\leftrightarrow$	†	†	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Atomoxetine	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	<b>*</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Dexamfetamine	$\leftrightarrow$	$\leftrightarrow$	1	1	$\leftrightarrow$	<b>+</b>	<b>+</b>	$\leftrightarrow$	<b>+</b>	<b></b>	
Dexmethylphenidate	$\leftrightarrow$										
Guanfacine	1	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Lisdexamfetamine	$\leftrightarrow$	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Methylphenidate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	

### **Text Legend**

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- ↓ Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Ensitrelvir or Nirmatrelvir/ritonavir + Atomoxetine

A clinically significant interaction is not expected in extensive metabolizers of CYP2D6. However, atomoxetine concentrations may increase in poor CYP2D6 metabolizers and caution is advised.

#### **Abbreviations**

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### **Anaesthetics & Muscle Relaxants**

	Antivirals				Co	rticosterc	Host-directed			
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	HC	MP	BAR	TCZ
Alcuronium	$\leftrightarrow$	$\leftrightarrow$	5 days ↔	≥10 days	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bupivacaine	<b>1</b>	$\leftrightarrow$	<b>1</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\overline{\downarrow}$
Cisatracurium	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cyclobenzaprine	<b>†</b>	$\leftrightarrow$	<b>†</b>	<b>↑</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Desflurane	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Desnidarie	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>→</b>	↔ ♥	<b>↔</b>	<b>↔</b>	<b>↓</b>	<b>↔</b>	$\leftrightarrow$
Enflurane	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del> </del>	<del> </del>	<b>↔</b>	$\leftrightarrow$
Ephedrine	$\leftrightarrow$									
Etidocaine	<b>1</b>	$\leftrightarrow$	<u> </u>	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\overline{\downarrow}$
Halothane	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$
Isoflurane	↔	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	↔	↔	↔	$\leftrightarrow$	↔	$\leftrightarrow$
Ketamine	<b>1</b>	$\leftrightarrow$	<u> </u>	<b>1</b>	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\overline{\downarrow}$
Methocarbamol	<b>↔</b>	↔	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	↔	↔	$\leftrightarrow$	↔	$\leftrightarrow$
Nitrous oxide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	$\leftrightarrow$
Propofol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>\</del>	↔ ♥	<b>↔</b>	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	<del>∀</del>
Rocuronium	<b>†</b>	$\leftrightarrow$	<b>†</b>	<b>†</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sevoflurane	→	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>∀</del>
Sufentanil	<b>→</b>	$\leftrightarrow$	<u> </u>	<u> </u>	$\leftrightarrow$			$\leftrightarrow$		$\downarrow$
Suxamethonium (succinylcholine)			-	·		<b>↔</b>	<b>↔</b>		<b>↔</b>	$\leftrightarrow$
Tetracaine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔	↔	$\leftrightarrow$	$\leftrightarrow$
Thiopental	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$		<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	$\leftrightarrow$
Tizanidine				<b>↔ ↓</b>						
Vecuronium	<b>↔</b>	<b>↔</b>	<b>↔</b>		↔ ♥	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>
vecuronium	$\leftrightarrow$									

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# **Analgesics**

	Antivirals				Corticosteroids			Host-directed		
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	HC	MP	BAR	TCZ
			5 days	≥10 days						
Alfentanil	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\rightarrow$
Aspirin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Buprenorphine	1	$\leftrightarrow$	1	<b>↑</b>	↔ ♥	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\rightarrow$
Butalbital	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Celecoxib	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>+</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Codeine	$\leftrightarrow$									
Dextropropoxyphene	<b>1</b>	$\leftrightarrow$	<b>1</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>→</b>
Diamorphine (diacetylmorphine)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Diclofenac	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b>↑</b>	<b></b>
Dihydrocodeine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Etoricoxib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>+</del>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Fentanyl	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>→</b>
Hydrocodone	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Hydromorphone	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Ibuprofen	$\leftrightarrow$	<b>1</b>	$\leftrightarrow$							
Indometacin (Indomethacin)	$\leftrightarrow$									
Ketoprofen	$\leftrightarrow$									
Ketorolac	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Mefenamic acid	$\leftrightarrow$									
Meloxicam	$\leftrightarrow$									
Metamizole	↑↓	$\leftrightarrow$	↑↓	↑↓	$\leftrightarrow$	↓	↓	₩	$\leftrightarrow$	$\leftrightarrow$
Methadone	<b>↑</b>	$\leftrightarrow$	<b>+</b>	$\downarrow$	↔ ♥	<b>↔</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Morphine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\downarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>+</del>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Nabumetone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Naproxen	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Nimesulide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Oxycodone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>
Paracetamol (Acetaminophen)	$\leftrightarrow$									
Pethidine (Meperidine)	1	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Piroxicam	$\leftrightarrow$									
Remifentanil	$\leftrightarrow$									
Tapentadol	$\leftrightarrow$									
Tramadol	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

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#### Notes:

Codeine + Nirmatrelvir/ritonavir: Ritonavir could potentially reduce the analgesic efficacy.

Diamorphine, Morphine + Nirmatrelvir/ritonavir:

Coadministration may potentiate the effects of opiate in the CNS (via inhibition of P-gp at the blood-brain barrier). Monitor for opiate toxicity.

Piroxicam + Nirmatrelvir/ritonavir: Coadministration is not recommended in the product labels for nirmatrelvir/ritonavir due to the risk of serious respiratory depression or haematological abnormalities.

Aspirin, Celecoxib, Diclofenac, Etoricoxib, Ibuprofen, Indometacin, Ketoprofen, Ketorolac, Mefenamic acid, Meloxicam, Nabumetone, Naproxen, Nimesulide, Piroxicam + Dexamethasone, Hydrocortisone, Methylprednisolone:

Patients should be monitored since the incidence and/or severity of gastro-intestinal ulceration may increase.

Metamizole + Baricitinib, Tocilizumab: Coadministration should be avoided due to the increased risk of haematological toxicity.

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# Antiarrhythmics

		Antivirals				Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Amiodarone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	<b></b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftarrow$
Bepridil	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	<b>+</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Digoxin	<b>1</b> 31%	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓ 10%	$\leftrightarrow$
Disopyramide	1	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dofetilide	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dronedarone	1	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Flecainide	$\leftrightarrow$	$\leftrightarrow$	1	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Lidocaine (Lignocaine)	$\leftrightarrow$	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Mexiletine	$\leftrightarrow$	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Propafenone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Quinidine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>

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#### Notes:

Dexamethasone, Hydrocortisone, Methylprednisolone

Close monitoring is advised as dexamethasone, hydrocortisone or methylprednisolone may cause hypokalaemia which increases the risk of arrhythmias. In cases of hypokalaemia, potassium levels should be corrected and QT interval monitored.

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#### **Antibacterials**

	Antivirals				Corticosteroids			Host-d	Host-directed	
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Azithromycin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bedaquiline	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	<b></b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ciprofloxacin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	<b></b>	<b>♦</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Clarithromycin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	<b>↑</b> ₩	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Clindamycin	1	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Clofazimine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Delamanid	<b>↑</b> ♥	$\leftrightarrow$	<b>↑</b> ♥	<b>↑</b> ♥	↔ ♥	$\leftrightarrow$	<b>↑</b> ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Erythromycin	<b>↑</b> ♥	$\leftrightarrow$	<b>↑</b> ♥	<b>↑</b> ♥	↔ ♥	<b>+</b>	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Flucloxacillin	₩	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓	⇒	↓	$\leftrightarrow$	$\leftrightarrow$
Fusidic acid (oral or IV)	<b>1</b>	$\leftrightarrow$	<b>↑</b> ↑	↑↑	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Levofloxacin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	<b>+</b>	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Linezolid	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Moxifloxacin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	↔ 🗸	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ofloxacin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rifabutin	1	<b>+</b>	<b>↑</b>	1	$\leftrightarrow$	↓	<b>↑</b>	↓	$\leftrightarrow$	$\leftrightarrow$
Rifampicin (Rifampin)	₩	$\leftrightarrow$	₩	↓	₩	↓	$\leftrightarrow$	↓	<b>₩</b> 34%	$\leftrightarrow$
Rifapentine	₩	$\leftrightarrow$	₩	↓	₩	↓	<b>+</b>	↓	$\leftrightarrow$	$\leftrightarrow$
Sulfadiazine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Telithromycin	1	$\leftrightarrow$	1	1	↔ ♥	<b>+</b>	<b>↑</b> ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tinidazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

### **Text Legend**

- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

### Notes:

Linezolid + Baricitinib, Tocilizumab

Caution is required due to potential additive haematological toxicity.

No interactions are expected with the COVID-19 therapies listed and the following antibacterials:

Amikacin Cloxacillin Metronidazole Amoxicillin Cycloserine Nitrofurantoin

Ampicillin Dapsone Para-aminosalicylic acid Capreomycin Doxycycline Penicillins

Cefalexin Ertapenem **Piperacillin** Cefazolin **Ethambutol** Pyrazinamide Cefepime Ethionamide Rifaximin Cefixime Fosfomycin Spectinomycin Cefotaxime Fusidic acid (topical) Streptomycin Ceftazidime Gentamicin Sulfadiazine Ceftriaxone Imipenem/Cilastatin **Tazobactam** Isoniazid Cefuroxime Tetracyclines

Chloramphenicol Kanamycin Trimethoprim/Sulfamethoxazole

Clavulanic acid Meropenem Vancomycin

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

 our Logoria
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity.  Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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

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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Anti-coagulant, Anti-platelet and Fibrinolytic

	Antivirals				Corticosteroids			Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Acenocoumarol	$\leftrightarrow$	$\leftrightarrow$	→ Juays	≥ 10 days	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Apixaban	<u> </u>	↔	<b>†</b>	<b>*</b>	<del>↔</del>	$\downarrow$	$\leftrightarrow$	<b>↔</b>	↔	<del></del>
Argatroban	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Aspirin (anti-platelet)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	→ →	$\leftrightarrow$	<b>↔</b>
Betrixaban	$\uparrow$	$\leftrightarrow$	<u> </u>	<b>↑</b>	↔ ♥	$\rightarrow$	$\leftrightarrow$	<del>∀</del> ↔	$\leftrightarrow$	<b>↔</b>
Cilostazol	<u> </u>	$\leftrightarrow$	<u> </u>	<u> </u>	↔ ♥	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>
Clopidogrel	<del></del>	$\leftrightarrow$	<b>\</b>	<b>+</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>→</b>	$\leftrightarrow$	$\rightarrow$
Clopidogrel (recently stented patients)	$\downarrow$	$\leftrightarrow$	Ŭ,	<b>+</b>	<del> </del>	$\leftrightarrow$	<del> </del>	$\leftrightarrow$	$\leftrightarrow$	<del>*</del>
Dabigatran	<b>†</b>	$\leftrightarrow$		<b>∀</b>	<b>→</b>	$\rightarrow$	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	<b>→</b>
Dalteparin	→	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	<b>→</b>	$\leftrightarrow$	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>
Dipyridamole				$\downarrow$						
Edoxaban	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>*</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>
		<b>↔</b>	•	•	<b>↔</b>		<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>
Enoxaparin	<b>↔</b>									
Fondaparinux	<b>↔</b>									
Heparin	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b> ↓↑	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>+</b>
Phenprocoumon		<b>↔</b>			<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<u> </u>
Prasugrel	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	<b>+</b>
Rivaroxaban		$\leftrightarrow$		•	$\leftrightarrow$	<b>→</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>→</b>
Streptokinase	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$						
Ticagrelor	1	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Ticlopidine	$\leftrightarrow$									
Tinzaparin	$\leftrightarrow$									
Vorapaxar	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Warfarin	<b>↑</b>	$\leftrightarrow$	. ↓	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>

### **Text Legend**

- ↑ Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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#### Notes:

Acenocoumarol, Phenprocoumon, Warfarin + Tocilizumab

Monitor INR with vitamin K antagonists (e.g., acenocoumarol, phenprocoumon, warfarin).

Acenocoumarol, Phenprocoumon, Warfarin + Dexamethasone, Hydrocortisone, Methylprednisolone

Efficacy of coumarin anticoagulants may be enhanced by concurrent corticosteroid therapy and close monitoring of the INR or prothrombin time is required to avoid spontaneous bleeding.

Apixaban, Betrixaban, Dabigatran, Edoxaban, Rivaroxaban + Dexamethasone

COVID-19 is associated with hypercoagulopathy and an excess of thrombotic complications. Alternatives, e.g., low molecular weight heparins, may be considered in severe COVID19 disease. Note, any reduction in drug concentrations may persist for up to 14 days after dexamethasone course is complete.

Apixaban, Argatroban, Betrixaban, Dabigatran, Edoxaban, Rivaroxaban + Methylprednisolone

There are reports of enhanced as well as diminished effects of anticoagulants when given concurrently with corticosteroids. Therefore, coagulation indices should be monitored to maintain the desired anticoagulant effects.

Aspirin (anti-platelet) + Dexamethasone, Hydrocortisone, Methylprednisolone

Product labels for aspirin advise caution in patients receiving concomitant medications which could increase the risk of ulceration, e.g., oral corticosteroids.

Cilostazol, Ticlopidine + Dexamethasone, Hydrocortisone, Methylprednisolone

Caution is required due to potential additive haematological toxicity.

Clopidogrel (± recently stented patients) + Nirmatrelvir/ritonavir

Management of this interaction should take into account whether or not a transient loss of clopidogrel efficacy during the short duration of nirmatrelvir/ritonavir treatment is acceptable. Avoid coadministration in patients at very high-risk of thrombosis, e.g. at least within 6 weeks of coronary stenting. A transient loss in efficacy may be acceptable in other clinical situations, allowing clopidogrel to continue.

Dabigatran + Nirmatrelvir/ritonavir

No pharmacokinetic interaction expected if nirmatrelvir/ritonavir is administered simultaneously with dabigatran.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)			,	

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Anticonvulsants**

	Antivirals				Corticosteroids			Host-directed		
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	HC	MP	BAR	TCZ
D: 1			5 days	≥10 days						
Brivaracetam	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>
Carbamazepine	₩	$\leftrightarrow$		₩	₩	₩		₩	$\leftrightarrow$	<b>↓</b>
Cenobamate	⇒	$\leftrightarrow$	↓	₩	♦	₩	⇒	⇒	ſ	$\leftrightarrow$
Clonazepam	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Eslicarbazepine	↓↑	$\leftrightarrow$	Ų↑	Ų↑	$\leftrightarrow$	₩	⇒	₩	$\leftrightarrow$	$\leftrightarrow$
Ethosuximide	<b>↑</b>	$\leftrightarrow$	<b>1</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Gabapentin	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b></b>						
Lacosamide	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Lamotrigine	<b></b>	<b></b>	$\leftrightarrow$	$\downarrow$	<b></b>	<b></b>	<b></b>	<b></b>	<b></b>	<b></b>
Levetiracetam	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Oxcarbazepine	Ų↑	<b>+</b>	Ų↑	Ų↑	$\leftrightarrow$	↓	↓	↓	$\leftrightarrow$	<b>+</b>
Perampanel	<b>↑</b>	$\leftrightarrow$	1	1	<b></b>	$\leftrightarrow$	÷	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Phenobarbital (Phenobarbitone)	⇒	$\leftrightarrow$	↓	↓	₩	↓	↓	↓	$\leftrightarrow$	<b>→</b>
Phenytoin	₩	$\leftrightarrow$	↓	↓	₩	↓	↓	↓	$\leftrightarrow$	<b>→</b>
Pregabalin	$\leftrightarrow$									
Primidone	₩	$\leftrightarrow$	↓	₩	₩	↓	₩	↓	$\leftrightarrow$	<b>→</b>
Retigabine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rufinamide	₩	$\leftrightarrow$	↓	↓	÷	↓	<b></b>	↓	$\leftrightarrow$	$\leftrightarrow$
Sodium valproate	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	<b>↓</b>	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sultiame	<b>↑</b>	<b></b>	<b>↑</b>	<b>↑</b>	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Tiagabine	<b>↑</b>	<b>+</b>	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>+</b>	<b>+</b>
Topiramate	$\leftrightarrow$									
Valproate semisodium (Divalproex)	$\leftrightarrow$	<b>+</b>	<b>\</b>	<b>+</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>
Valproic acid	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Vigabatrin	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Zonisamide	$\leftrightarrow$									

## **Text Legend**

- Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- ↑ Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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#### Notes:

Eslicarbazepine and Oxcarbazepine + Nirmatrelvir/ritonavir

Ritonavir could increase eslicarbazepine and oxcarbazepine concentrations in the brain due to inhibition of P-gp, particularly in drug-resistant patients on high dose eslicarbazepine or oxcarbazepine and potentially cause adverse effects (drowsiness, diplopia, dizziness, nausea and vomiting). The clinical relevance of this interaction is unclear in patients on standard doses of eslicarbazepine or oxcarbazepine but use with caution in patients on high dose eslicarbazepine or oxcarbazepine.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Antidepressants**

			Antivirals	5		Со	rticostero	oids	Host-a	Host-directed	
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	НС	MP	BAR	TCZ	
A managlating			5 days	≥10 days							
Agomelatine	$\leftrightarrow$	$\leftrightarrow$	←→	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Amitriptyline	$\leftrightarrow$	$\leftrightarrow$		<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Bupropion	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Citalopram	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Clomipramine	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Desipramine	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	1	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Desvenlafaxine	$\leftrightarrow$										
Doxepin	$\leftrightarrow$	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Duloxetine	$\leftrightarrow$										
Escitalopram	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Fluoxetine	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Imipramine	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>*</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	
Lithium	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Maprotiline	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>↔ ∀</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷	
Mianserin	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ 🗸	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Milnacipran	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Mirtazapine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Nefazodone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Nortriptyline	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>↔ ♥</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Opipramol	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Paroxetine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Phenelzine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>+</del>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Reboxetine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Sertraline	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\downarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Tranylcypromine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Trazodone	↑ •	$\leftrightarrow$	↑ •	<b>↑</b> ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Trimipramine	$\leftrightarrow$	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Venlafaxine	$\leftrightarrow$	$\leftrightarrow$	1	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Vilazodone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<u>†</u>	<b>+</b>	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Vortioxetine	$\leftrightarrow$	$\leftrightarrow$	<u> </u>	<b>↑</b>	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	

### **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

# Notes:

Lithium + Dexamethasone, hydrocortisone, methylprednisolone

If electrolyte imbalance occurs with dexamethasone, hydrocortisone or methylprednisolone, there is potential for altered lithium excretion. The clinical significance of this is unclear but monitoring of lithium effects may be required, particularly in patients with renal impairment or with other conditions pre-disposing to lithium toxicity.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Anti-diabetics**

		Antivirals				Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Acarbose	$\leftrightarrow$									
Alogliptan	$\leftrightarrow$									
Canagliflozin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dapagliflozin	$\leftrightarrow$									
Dulaglutide	$\leftrightarrow$									
Empagliflozin	$\leftrightarrow$									
Exenatide	$\leftrightarrow$	<b>+</b>								
Glibenclamide (Glyburide)	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Gliclazide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Glimepiride	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷
Glipizide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Insulin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Linagliptin	$\leftrightarrow$									
Liraglutide	$\leftrightarrow$									
Metformin	$\leftrightarrow$									
Nateglinide	$\leftrightarrow$	$\leftrightarrow$	1	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pioglitazone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	1	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Repaglinide	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rosiglitazone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Saxagliptin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Semaglutide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sitagliptin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Tirzepatide	$\leftrightarrow$									
Tolbutamide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Vildagliptin	$\leftrightarrow$									

### **Text Legend**

- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- ↑ Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

### Notes:

Antidiabetics (if amber) + Nirmatrelvir/ritonavir

Patients should be advised to monitor blood sugar levels at home.

Antidiabetics + Dexamethasone or hydrocortisone

The desired effects of hypoglycaemic agents can be antagonised by dexamethasone or hydrocortisone and blood glucose monitoring is recommended.

Antidiabetics + Methylprednisolone

Corticosteroids may increase blood glucose concentrations and dosage adjustments of antidiabetic agents may be required.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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

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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Antifungals**

	Antivirals				Со	rticostero	Host-directed			
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Amphotericin B	$\leftrightarrow$									
Anidulafungin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Caspofungin	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Clotrimazole (pessary, troche)	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Clotrimazole (topical)	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Fluconazole	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	↔♥	<b></b>	<b></b>	$\leftrightarrow$	<b>1</b> 22%	$\leftrightarrow$
Flucytosine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$
Griseofulvin	↓	$\leftrightarrow$	↓	₩	$\leftrightarrow$	↓	↓	₩	$\leftrightarrow$	$\leftrightarrow$
Isavuconazole	<b>↑</b>	$\leftrightarrow$	↑↓	↑₩	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Itraconazole	↑ ↑	$\leftrightarrow$	↑ ↑	111	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Ketoconazole	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b>1</b> 21%	$\leftrightarrow$
Micafungin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Miconazole	$\leftrightarrow$									
Nystatin	$\leftrightarrow$									
Posaconazole	Π	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Terbinafine	$\leftrightarrow$									
Voriconazole	1111	$\leftrightarrow$	↑↓	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

### **Text Legend**

- ↑ Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

## Notes:

Amphotericin B + Dexamethasone, Hydrocortisone, Methylprednisolone

Close monitoring is advised as dexamethasone, hydrocortisone, methylprednisolone and amphotericin may cause hypokalaemia which increases the risk of torsade de pointes. Before the start of corticosteroid treatment, hypokalaemia should be corrected and patients should be monitored clinically, for electrolytes and by ECG.

Voriconazole + Nirmatrelvir/ritonavir

Voriconazole concentrations may decrease in individuals with functional CYP2C19 or increase in individuals with loss-of-function in CYP2C19.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Antihaemorrhagics**

		Antivirals				Corticosteroids			Host-directed	
	ESV	MOL		NMV/r ≥10 days		DEX	НС	MP	BAR	TCZ
Avatrombopag										
Eltrombopag	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Fostamatinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tranexamic acid	$\leftrightarrow$									

## **Text Legend**

- ↑ Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- n Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Baricitinib, Tocilizumab: Caution is required due to potential additive haematological toxicity.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)			•	

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Antihistamines**

	Antivirals						rticostero	Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Azelastine	$\leftrightarrow$									
Cetirizine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Chlorphenamine	$\leftrightarrow$	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Desloratadine	$\leftrightarrow$									
Diphenhydramine	$\leftrightarrow$	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Doxylamine	$\leftrightarrow$									
Fexofenadine	$\leftrightarrow$	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷
Levocetirizine	$\leftrightarrow$	÷								
Loratadine	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷
Meclizine	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Promethazine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

# **Text Legend**

- ↑ Potential increased exposure of the comedication
- → Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by <a href="www.crediblemeds.org">www.crediblemeds.org</a> as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

#### Antivirals Corticosteroids Host-directed **ESV** MOL NMV/r NMV/r **RDV** DEX HC MP BAR **TCZ** ≥10 day 5 days Amodiaquine $\leftrightarrow$ $\leftrightarrow$ Artemether $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Artesunate $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Atovaquone $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Chloroquine ↑♥ ↑ 🕶 ↑ 🕶 ₩ • $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ ↑♥ ↑ 🔻 Halofantrine ↑v $\leftrightarrow$ ↔ ¥ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Hydroxychloroquine ↑ $\uparrow$ 1 U • $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Lumefantrine 1 1 • 1 . ↔ ♥ $\leftrightarrow$ $\downarrow \downarrow$ $\downarrow \downarrow$ Mefloquine $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Piperaquine ↑♥ ↑ 🔻 $\leftrightarrow$ $\leftrightarrow \forall$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Primaquine ↔ ٧ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Proguanil 1 $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ Pyrimethamine $\leftrightarrow$ $\leftrightarrow$ Quinine $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$ $\leftrightarrow$

#### **Antimalarials**

### **Text Legend**

Sulfadoxine

- Potential increased exposure of the comedication
- → Potential decreased exposure of the comedication
- ↑ Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

 $\leftrightarrow$ 

 $\leftrightarrow$ 

 $\leftrightarrow$ 

 $\leftrightarrow$ 

 $\leftrightarrow$ 

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#### Notes:

Chloroquine or Hydroxychloroquine + Baricitinib, Tocilizumab Use with caution due to potential additive toxicity.

Chloroquine or Hydroxychloroquine + Dexamethasone, Hydrocortisone, Methylprednisolone Caution is recommended as there is an increased risk of myopathies

 $\leftrightarrow$ 

 $\leftrightarrow$ 

 $\leftrightarrow$ 

 $\leftrightarrow$ 

 $\leftrightarrow$ 

Primaquine or Pyrimethamine + Baricitinib, Tocilizumab
Caution is required due to potential additive haematological toxicity.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Antimigraine Agents**

	Antivirals						rticosterc	Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Almotriptan	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dihydroergotamine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Eletriptan	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Eptinezumab	$\leftrightarrow$									
Erenumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>*</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ergotamine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	<b></b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$
Fremanuzemab	<b></b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>*</b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$
Frovatriptan	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	$\leftrightarrow$	<b>*</b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$
Galcanezumab	<b></b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	<b></b>	<b>*</b>	$\leftrightarrow$
Naratriptan	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$
Pizotifen	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓	$\leftrightarrow$	$\leftrightarrow$	<b>*</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rimegepant	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rizatriptan	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$
Sumatriptan	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$
Ubrogepant	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Zolmitriptan	<b>*</b>	$\leftrightarrow$	<b>1</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$

## **Text Legend**

- ↑ Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)			,	

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

## Antipsychotics/Neuroleptics

	Antivirals						rticosterc	Host-directed		
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	HC	MP	BAR	TCZ
			5 days	≥10 days						
Amisulpride	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$						
Aripiprazole	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Asenapine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Brexpiprazole	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cariprazine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Chlorpromazine	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	1	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Clozapine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Flupentixol (Flupenthixol)	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Fluphenazine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Haloperidol	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
lloperidone	↑ ♥	$\leftrightarrow$	↑ ♥	<b>↑</b> ♥	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Levomepromazine	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Lumateperone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>
Lurasidone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b></b>
Olanzapine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>→</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b></b>
Paliperidone	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Perazine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔♥	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Periciazine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Perphenazine	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Pimavanserin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Pimozide	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Pipotiazine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Quetiapine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<del>+</del>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Risperidone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sulpiride	$\leftrightarrow$									
Thioridazine	1	$\leftrightarrow$	1	1	↔ ♥	₩	₩	₩	$\leftrightarrow$	$\leftrightarrow$
Tiapride	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ziprasidone	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Zotepine	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Zuclopenthixol	<u>†</u>	$\leftrightarrow$	<u>†</u>	<u>†</u>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

### **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

### Notes:

Brexpiprazole, Cariprazine, Clozapine and Lumateperone + Baricitinib, Tocilizumab Caution is required due to potential additive haematological toxicity.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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

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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Antivirals**

	Antivirals			Со	rticostero	oids	Host-directed			
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Aciclovir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Adefovir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\Rightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Baloxavir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Brincidofovir	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>1</b>	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	Î	$\leftrightarrow$
Bulevirtide	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cidofovir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Entecavir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	<b>*</b>	$\leftrightarrow$
Famciclovir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Foscarnet	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ganciclovir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Letermovir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	1	$\leftrightarrow$
Maribavir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Oseltamivir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ribavirin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rimantadine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tecovirimat	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Telbivudine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tenofovir alafenamide (HBV)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Valaciclovir (Valacyclovir)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Valganciclovir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>*</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Zanamivir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

## **Text Legend**

- Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- ↑ Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

# Notes:

Ganciclovir, Valganciclovir + Baricitinib, Tocilizumab

Caution is required due to potential additive haematological toxicity.

Ribavirin + Baricitinib

Use with caution due to potential additive haematological toxicity.

Ribavirin + Tocilizumab

The risk of haematological toxicity may be potentially increased as ribavirin and tocilizumab can cause myelosuppression. Closely monitor haematological parameters.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Anxiolytics/Hypnotics/Sedatives

	Antivirals						Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ	
Alprazolam	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Bromazepam	$\leftrightarrow$										
Buspirone	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Chlordiazepoxide	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Clobazam	<b>↑</b>	$\leftrightarrow$	↑↓	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Clorazepate	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Diazepam	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Estazolam	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Eszopiclone	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	
Flunitrazepam	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	
Flurazepam	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	
Hydroxyzine	<b>↑</b>	<b>+</b>	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Lorazepam	$\leftrightarrow$										
Lormetazepam	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$								
Midazolam (oral)	<b>↑</b> 577%	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Midazolam (parenteral)	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Oxazepam	$\leftrightarrow$										
Suvorexant	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Temazepam	$\leftrightarrow$										
Triazolam	<b>↑</b>	<b>+</b>	<b>↑</b>	1	$\leftrightarrow$	↓ 19%	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	
Zaleplon	$\leftrightarrow$	<b>+</b>									
Zolpidem	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Zopiclone	1	$\leftrightarrow$	1 Lagrangia Th	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	

- 1 Lagevrio™
- 2 Paxlovid™
- 3 Veklury™

## **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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# Notes:

Hydroxyzine, Zolpidem, Zopiclone + Nirmatrelvir/ritonavir Patients should be advised of the risk of increased sedation.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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 ${\bf Please\ check\ www.covid 19-drug interactions.org\ for\ updates.}$ 

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Benign Prostatic Hyperplasia Therapies**

	Antivirals						rticosterc	Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Alfuzosin	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dutasteride	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Finasteride (5 mg)	$\leftrightarrow$									
Silodosin	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tadalafil (BPH)	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tamsulosin	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

### **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)			,	

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023 Page 20 of 56

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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Beta Blockers**

	Antivirals						rticosterc	Host-directed		
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Atenolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bisoprolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>♦</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Carvedilol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Metoprolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Nebivolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Oxprenolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Pindolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Propranolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Sotalol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Timolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>

### **Text Legend**

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- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by <a href="www.crediblemeds.org">www.crediblemeds.org</a> as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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 $\label{please check www.covid19-druginteractions.org for updates.} Please check www.covid19-druginteractions.org for updates.$ 

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

## **Bisphosphonates**

	Antivirals						rticosterc	Host-directed		
	ESV	MOL	-	NMV/r ≥10 days		DEX	HC	MP	BAR	TCZ
Alendronic acid (Alendronate)	$\leftrightarrow$									
Ibandronic acid (Ibandronate)	$\leftrightarrow$	<b></b>								
Risedronic acid (Risedronate)	<b>+</b>	$\leftrightarrow$								
Zoledronic acid (Zoledronate)	<b>+</b>	$\leftrightarrow$								

## **Text Legend**

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- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)			•	

•	orear Legeria
	These drugs should not be coadministered
	Potential interaction which may require a dose adjustment or close monitoring.
	Potential interaction likely to be of weak intensity.  Additional action/monitoring or dosage adjustment unlikely to be required.
Г	No clinically significant interaction expected



Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Bronchodilators**

		Antivirals						Corticosteroids			
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ	
Aclidinium bromide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	
Aminophylline	$\leftrightarrow$	$\leftrightarrow$	↓	↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\downarrow$	
Formoterol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Glycopyrronium bromide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Indacaterol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Ipratropium bromide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Montelukast	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Olodaterol	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Roflumilast	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Salbutamol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Salmeterol	↑ ♥	$\leftrightarrow$	↑ ♥	↑ 🕶	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Terbutaline	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Theophylline	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>→</b>	
Tiotropium bromide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>*</b>	
Umeclidinium bromide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	
Vilanterol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	

## **Text Legend**

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- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
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### Notes:

Aminophylline + Nirmatrelvir/ritonavir or Tocilizumab

Aminophylline is a complex of theophylline and ethylenediamine and is given for its theophylline activity. Coadministration may decrease theophylline concentrations.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

•
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Calcium Channel Blockers**

	Antivirals						rticostero	Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Amlodipine	1	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Diltiazem	1	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Felodipine	1	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Nicardipine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Nifedipine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Nisoldipine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Nitrendipine	1	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Verapamil	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>

# **Text Legend**

- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Calcium channel blockers + Nirmatrelvir/ritonavir

A dose adjustment could be optional given that patients can be advised to monitor for symptoms of hypotension, flushing and oedema and, if necessary, to temporarily pause the antihypertensive drug.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

## **Cancer Therapies (A-C)**

			Antivirals	6		Со	rticostero	oids	Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Abemaciclib	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Abiraterone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Acalabrutinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Afatinib	<b>↑</b>	$\leftrightarrow$	<b>1</b>	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Aldesleukin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Alectinib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Alpelisib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Amivantamab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Anastrozole	1	$\leftrightarrow$	1	$\uparrow\downarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Apalutamide	↓	$\leftrightarrow$	₩	↓	<b>↓</b> •	Ų.	Ų	₩	$\leftrightarrow$	$\leftrightarrow$
Asciminib	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Atezolizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Avapritinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔♥	↓	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Axitinib	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	<b>+</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Bendamustine	1	$\leftrightarrow$	$\leftrightarrow$	$\downarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bevacizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bexarotene	↓	$\leftrightarrow$	₩	↓	$\leftrightarrow$	↓	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Bicalutamide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Binimetinib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	Π	$\leftrightarrow$
Blinatumomab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bortezomib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>+</del>
Bosutinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Brentuximab vedotin	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Brigatinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cabazitaxel	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cabozantinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Capecitabine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Capmatinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	Π	$\leftrightarrow$
Carboplatin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Carfilzomib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cemiplimab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ceritinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cetuximab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Chlorambucil	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cobimetinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Crizotinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cyclophosphamide	1	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

#### **Text Legend**

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- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Baricitinib, tocilizumab: Caution is required due to potential additive haematological toxicity.

Aldesleukin + Dexamethasone, hydrocortisone, methylprednisolone: Co-administered glucocorticoids may decrease the activity of aldesleukin. Binimetinib + nirmatrelvir/ritonavir (5 days): No effect on binimetinib is anticipated. However, binimetinib is given in combination with encorafenib and coadministration of encorafenib with nirmatrelvir/ritonavir is not recommended.

Cyclophosphamide + nirmatrelvir/ritonavir: In theory, nirmatrelvir/ritonavir could potentially reduce the risk of neurotoxicity by inhibiting the CYP3A4-mediated inactivation pathway.

### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)			,	

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

## **Cancer Therapies (D-H)**

			Antivirals	3		Со	rticostero	Host-directed		
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	HC	MP	BAR	TCZ
			5 days	≥10 days						
Dabrafenib	↓	$\leftrightarrow$	₩	₩	↔ ♥	↓	↓	₩	$\leftrightarrow$	$\leftrightarrow$
Dacarbazine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dacomitinib	$\leftrightarrow$									
Dactinomycin	$\leftrightarrow$									
Daratumumab	$\leftrightarrow$									
Darolutamide	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	Î	$\leftrightarrow$
Dasatinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>1</b>	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Docetaxel	<b>↑</b>	$\leftrightarrow$	1	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Doxorubicin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Durvalumab	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓	↓	₩	₩	↓
Duvelisib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Elotuzumab	$\leftrightarrow$									
Enasidenib	↓	$\leftrightarrow$	↓	$\downarrow$	↓	₩	↓	₩	Π	$\leftrightarrow$
Encorafenib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Enfortumab vedotin	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Entrectinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Enzalutamide	↓	$\leftrightarrow$	↓	$\downarrow$	₩ •	↓	↓	₩	$\leftrightarrow$	$\leftrightarrow$
Epirubicin	<b>↑</b>	$\leftrightarrow$	1	<b>+</b>	↔ ♥	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Erdafitinib	<b>↑</b>	$\leftrightarrow$	1	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Erlotinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Etoposide	<b>↑</b>	<b>+</b>	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Exemestane	$\leftrightarrow$									
Fedratinib	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Fluorouracil (5-FU)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Flutamide	<b>↑</b>	$\leftrightarrow$	↑↓	↑↓	↔ ♥	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Fulvestrant	$\leftrightarrow$									
Gefitinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Gemcitabine	$\leftrightarrow$									
Gilteritinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Glasdegib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Hydroxycarbamide (Hydroxyurea)	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

## **Text Legend**

- Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Baricitinib, Tocilizumab: Caution is required due to potential additive haematological toxicity.

Dacarbazine + Nirmatrelvir/ritonavir (≥10 days): When used for an extended treatment duration, nirmatrelvir/ritonavir could increase activation to MTIC and thereby increase the efficacy and toxicity of dacarbazine.

Durvalumab, Ipilimumab + Dexamethasone, Hydrocortisone, Methylprednisolone, Baricitinib, Tocilizumab: A reduction in COVID therapy cannot be excluded due to the immunostimulatory effect of the cancer therapy (which persists even upon discontinuation of the drug).

Fedratinib + Baricitinib: Coadministration is not recommended due to potential additive immunosuppression and increased risk of infection.

Flutamide + Nirmatrelvir/ritonavir: Coadministration could increase flutamide concentrations but decrease concentrations of an active metabolite. The clinical significance of this interaction is unknown.

Fostamatinib + Ensitrelvir or Nirmatrelvir/ritonavir: Exposure of R406 (fostamatinib's major active metabolite) is expected to increase which may increase the risk of adverse reactions (i.e., diarrhoea, hypertension, hepatotoxicity and neutropenia).

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)			,	

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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

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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Cancer Therapies (I-O)

	Antivirals						rticosterc	Host-directed		
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	HC	MP	BAR	TCZ
			5 days	≥10 days						
Ibrutinib	<b>↑</b>	$\leftrightarrow$	<b>1</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Idelalisib	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Imatinib	1	$\leftrightarrow$	<b>1</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Infigratinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Inotuzumab ozogamicin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ∀</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ipilimumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	₩	↓	↓	$\downarrow$	⇒
Irinotecan	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Isotretinoin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ivosidenib	↑↓	$\leftrightarrow$	↑↓	↑↓	<b>↓</b> •	↓	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Ixazomib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷	$\leftrightarrow$	÷	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Lapatinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>↔ ∀</b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Larotrectinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b></b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Lenalidomide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>+</del>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Lenvatinib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	<b></b>	$\leftrightarrow$		
Letrozole	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Lomustine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>+</b>	$\leftrightarrow$	<del>+</del>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Lorlatinib	↑↓	$\leftrightarrow$	↑↓	↑↓	<b>+</b>	⇒	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Mercaptopurine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>+</del>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Methotrexate	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Midostaurin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Mitotane	₩	$\leftrightarrow$	₩	↓	↓	↓	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Mobocertinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>1</b>	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Necitumumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	<b>↔</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Neratinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Nilotinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>1</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Niraparib	$\leftrightarrow$									
Nivolumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	Ų.	₩	Ų	Ų	₩
Obinutuzumab	$\leftrightarrow$	↔	$\leftrightarrow$							
Ofatumumab	$\leftrightarrow$									
Olaparib	<u> </u>	$\leftrightarrow$	<b>1</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Olaratumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Osimertinib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>
Oxaliplatin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>

### **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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### Notes:

Baricitinib, Tocilizumab: Caution is required due to potential additive haematological toxicity.

Nivolumab, Pembrolizumab + Dexamethasone, Hydrocortisone, Methylprednisolone, Baricitinib, Tocilizumab: A reduction in COVID therapy cannot be excluded due to the immunostimulatory effect of the cancer therapy (which persists even upon discontinuation of the drug).

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)			,	

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

## Cancer Therapies (P-R)

	Antivirals						rticostero	Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Paclitaxel	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Palbociclib	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Panitumumab	$\leftrightarrow$									
Panobinostat	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pazopanib	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pembrolizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓	↓	₩	↓	↓
Pemetrexed	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	^ ↑	$\leftrightarrow$
Pemigatinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pertuzumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pexidartinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	↓	↓	₩	$\leftrightarrow$	$\leftrightarrow$
Polatuzumab vedotin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pomalidomide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ponatinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pralsetinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Regorafenib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Relugolix	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ribociclib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ripretinib	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rituximab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rucaparib	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

# **Text Leaend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Baricitinib, Tocilizumab: Caution is required due to potential additive haematological toxicity.

Rituximab + Baricitinib, Tocilizumab:

Coadministration is not recommended due to potential additive immunosuppression and increased risk of infection.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

## Cancer Therapies (S-Z)

			Antivirals	S		Со	Corticosteroids			Host-directed	
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	НС	MP	BAR	TCZ	
			5 days	≥10 days							
Selinexor	<u>↑</u>	$\leftrightarrow$	<u> </u>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Selpercatinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Sonidegib	1	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Sorafenib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Sotorasib	<b>↑</b>	$\leftrightarrow$	↓	↓	$\leftrightarrow$	↓	$\downarrow$	₩	$\leftrightarrow$	$\leftrightarrow$	
Sunitinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Talazoparib	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Tamoxifen	↓	$\leftrightarrow$	↓	$\downarrow$	↔ ♥	↓	⇒	₩	$\leftrightarrow$	$\leftrightarrow$	
Tegafur/ Gimeracil/ Oteracil	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	
Temsirolimus	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	
Tepotinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Thalidomide	$\leftrightarrow$										
Tisotumab vedotin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Tivozanib	$\leftrightarrow$										
Topotecan	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Toremifene	↑ •	$\leftrightarrow$	<b>↑</b> ♥	<b>↑</b> ♥	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Trametinib	$\leftrightarrow$	<b>1</b>	$\leftrightarrow$								
Trastuzumab	$\leftrightarrow$										
Trastuzumab emtansine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Trifluridine/Tipiracil	$\leftrightarrow$										
Umbralisib	↑↓	$\leftrightarrow$	↑↓	↑↓	₩	↓	↓		$\leftrightarrow$	$\leftrightarrow$	
Vandetanib	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	↔ ♥	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Vemurafenib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	↓	↓	<b>1</b>	<b>1</b>	$\leftrightarrow$	
Venetoclax	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Vinblastine	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	↓	↓	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	
Vincristine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Vinorelbine	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Zanubrutinib	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	

# **Text Legend**

- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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#### Notes:

Baricitinib, Tocilizumab: Caution is required due to potential additive haematological toxicity.

Sorafenib + Ensitrelvir or Nirmatrelvir/ritonavir: Coadministration of sorafenib and ritonavir in patients with Kaposi sarcoma did not significantly alter the exposure of sorafenib. However, the study had to be terminated early due to poor tolerance, which could possibly be related to inhibition of CYP3A4 by ritonavir leading to the formation of more toxic metabolites.

Tamoxifen + Ensitrelvir or Nirmatrelvir/ritonavir: Exposure of endoxifen (thought to be the most important metabolite contributing to the pharmacologic activity of tamoxifen) may decrease and reduce the efficacy of tamoxifen.

Trastuzumab emtansine + Ensitrelvir or Nirmatrelvir/ritonavir: Coadministration is expected to increase concentrations of DM1, an active component of emtansine, can lead to an increase in toxicity.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

## Contraceptives/HRT - Contraceptives

	Antivirals						rticosterc	Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Desogestrel (COC)	$\leftrightarrow$	$\leftrightarrow$	↑↓	^↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Desogestrel (POP)	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b>+</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Drospirenone (COC)	<b></b>	$\leftrightarrow$	↑↓	^↓	<b></b>	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ethinylestradiol	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>1</b> <1%	$\leftrightarrow$
Etonogestrel (implant)	$\leftrightarrow$									
Etonogestrel (vaginal ring)	$\leftrightarrow$	$\leftrightarrow$	↑↓	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Gestodene (COC)	$\leftrightarrow$	$\leftrightarrow$	↑↓	↑↓	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Levonorgestrel (COC)	$\leftrightarrow$	$\leftrightarrow$	↑↓	↑↓	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b> 12%	$\leftrightarrow$
Levonorgestrel (emergency con.)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Levonorgestrel (implant)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Levonorgestrel (IUD)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Levonorgestrel (POP)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>+</del>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Medroxyprogesterone (depot inj)	$\leftrightarrow$									
Norelgestromin (patch)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Norethisterone (COC)	$\leftrightarrow$	$\leftrightarrow$	↑↓	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Norethisterone (IM depot)	$\leftrightarrow$									
Norethisterone (POP)	$\leftrightarrow$									
Norgestimate (COC)	$\leftrightarrow$	$\leftrightarrow$	↑↓	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Norgestrel (COC)	$\leftrightarrow$	$\leftrightarrow$	↑↓	↑↓	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ulipristal	$\leftrightarrow$									

#### **Text Leaend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

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### Notes:

COC - Combined oral contraceptive; POP - Progestogen only pill; IUD - Intra-uterine device

COCs, Etonogestrel vaginal ring + Nirmatrelvir/ritonavir

Coadministration may increase progestogen exposure, but the estrogen component is expected to be reduced. This is unlikely to impair contraceptive efficacy, particularly considering the short duration of nirmatrelvir/ritonavir treatment, though it may increase the risk of irregular bleeding. However, Paxlovid product labels for 5 day administration state patients using combined hormonal contraceptives should be advised to use an effective alternative contraceptive method or an additional barrier method of contraception during treatment with nirmatrelvir/ritonavir, and until one menstrual cycle after stopping nirmatrelvir/ritonavir.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

•
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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 $\label{please check www.covid19-druginteractions.org for updates.} Please check www.covid19-druginteractions.org for updates.$ 

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Contraceptives/HRT - Hormone Replacement Therapy

		Antivirals						Corticosteroids			
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ	
Conjugated estrogens	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Drospirenone (HRT)	$\leftrightarrow$										
Dydrogesterone (HRT)	$\leftrightarrow$										
Estradiol	$\leftrightarrow$										
Levonorgestrel (HRT)	$\leftrightarrow$										
Medroxyprogesterone (oral)	$\leftrightarrow$										
Norethisterone (HRT)	$\leftrightarrow$										
Norgestrel (HRT)	$\leftrightarrow$										
Progesterone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	

- ↑ Potential increased exposure of the comedication
- → Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Cough and Cold Preparations**

	Antivirals						rticosterc	Host-directed		
	ESV	MOL		NMV/r ≥10 days		DEX	НС	MP	BAR	TCZ
Benzonatate	$\leftrightarrow$									
Carbocisteine	$\leftrightarrow$									
Dextromethorphan	$\leftrightarrow$									
Guaifenesin	$\leftrightarrow$									
Pseudoephedrine	$\leftrightarrow$									

#### **Text Legend**

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- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by <a href="www.crediblemeds.org">www.crediblemeds.org</a> as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

•	orear Legeria
	These drugs should not be coadministered
	Potential interaction which may require a dose adjustment or close monitoring.
	Potential interaction likely to be of weak intensity.  Additional action/monitoring or dosage adjustment unlikely to be required.
Г	No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Covid-19 Antiviral Therapies

			Со	rticostero	Host-directed					
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Bamlanivimab/Etesevimab	$\leftrightarrow$									
Bebtelovimab	$\leftrightarrow$									
Casirivimab/Imdevimab	$\leftrightarrow$									
Ensitrelvir		$\leftrightarrow$	↑↑	111	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$
Favipiravir	$\leftrightarrow$	<b>1</b>	$\leftrightarrow$							
Molnupiravir	$\leftrightarrow$		$\leftrightarrow$							
Niclosamide	$\leftrightarrow$									
Nirmatrelvir/ritonavir (5 days)	↑ ↑	$\leftrightarrow$			$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Nirmatrelvir/ritonavir (≥ 10 days)	↑ ↑	$\leftrightarrow$			$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Nitazoxanide	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$						
Remdesivir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$		$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sotrovimab	$\leftrightarrow$									
Tixagevimab/Cilgavimab	$\leftrightarrow$									

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- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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### Notes:

# Ensitrelvir + Dexamethasone

Coadministration of ensitrelvir (750 mg on day 1, 250 mg on day 2-5) with dexamethasone (1 mg) increased dexamethasone AUC by 3.47-fold at day 5, by 2.38-fold at day 9 (5 days after last ensitrelvir dose) and by 1.58-fold at day 14 (10 days after last ensitrelvir dose). The risk of Cushing syndrome is expected to be low due to the low dose of dexamethasone used in COVID-19 treatment and due to the short duration of ensitrelvir treatment. Prescribers should be aware of and to look out for signs of systemic corticosteroid side effects.

## Ensitrelvir + Hydrocortisone

The risk of Cushing syndrome is expected to be low due to the low dose and short treatment duration of hydrocortisone used in COVID-19 treatment and due to the short duration of ensitrelvir treatment.

### Ensitrelvir + Methylprednisolone

The risk of Cushing syndrome is expected to be low due to the low dose of methylprednisolone used in COVID-19 treatment and due to the short duration of ensitrelyir treatment. Prescribers should be aware of and to look out for signs of systemic corticosteroid side effects.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

## **Covid-19 Host-directed Therapies**

	Antivirals					Со	rticosterc	Host-directed		
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Anakinra	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Baricitinib	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$		$\leftrightarrow$
Budesonide (inhaled)	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Canakinumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Covid-19 convalescent plasma	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Covid-19 vaccines	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dexamethasone (low dose; ≤16 mg)	<b>1</b> 247%	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$		$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Fluvoxamine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Hydrocortisone (oral or IV)	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$		$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Imatinib (14 days)	<b>↑</b>	<b>+</b>	1	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Infliximab	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$
Methylprednisolone (oral or IV)	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$		$\leftrightarrow$	$\leftrightarrow$
Ruxolitinib	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sarilumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tocilizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Vilobelimab	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

### **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

### Notes:

Baricitinib or Tocilizumab and other immune therapies

Coadministration of some immune therapies is not recommended due to the enhanced immunosuppressive effect and/or the risk of serious infections or additive haematological toxicity.

Baricitinib or Tocilizumab + Imatinib

Caution is required due to potential additive haematological toxicity.

Budesonide + Nirmatrelvir/ritonavir

Budesonide concentrations are expected to increase due to CYP3A4 inhibition by nirmatrelvir/ritonavir. However, unlike with other strong CYP3A4 inhibitors, this is unlikely to be clinically relevant due to the short duration of nirmatrelvir/ritonavir treatment.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)			,	

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Cystic Fibrosis Agents**

		Antivirals				Corticosteroids			Host-directed	
	ESV	MOL		NMV/r ≥10 days		DEX	HC	MP	BAR	TCZ
Ivacaftor	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ivacaftor/lumacaftor	↓	$\leftrightarrow$	₩	₩	₩	↓	↓	₩	↓	$\leftrightarrow$
Ivacaftor/tezacaftor	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b></b>
Ivacaftor/tezacaftor/elexacaftor	<b>↑</b>	$\leftrightarrow$	1	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

## **Text Legend**

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- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Dementia Therapies**

		Antivirals				Corticosteroids			Host-directed	
	ESV	MOL		NMV/r ≥10 days		DEX	HC	MP	BAR	TCZ
Donepezil	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Galantamine	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Memantine	$\leftrightarrow$									
Rivastigmine	$\leftrightarrow$									

# **Text Legend**

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- Potential increased exposure of COVID drug
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#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

-	
	These drugs should not be coadministered
	Potential interaction which may require a dose adjustment or close monitoring.
	Potential interaction likely to be of weak intensity.  Additional action/monitoring or dosage adjustment unlikely to be required.
	No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Erectile Dysfunction Agents**

		Antivirals				Corticosteroids			Host-directed	
	ESV	MOL		NMV/r ≥10 days		DEX	HC	MP	BAR	TCZ
Avanafil	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sildenafil (erectile dysfunction)	<b>↑</b>	$\leftrightarrow$	1	1	÷	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tadalafil (erectile dysfunction)	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Vardenafil	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

## **Text Legend**

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- ↓ Potential decreased exposure of the comedication
- n Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Gastrointestinal Agents**

	Antivirals				Со	rticosterc	oids	Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Alosetron	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Antacids	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Bisacodyl	$\leftrightarrow$									
Bismuth subsalicylate	$\leftrightarrow$	<b></b>								
Cimetidine	$\leftrightarrow$									
Cisapride	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Dexlansoprazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Dicycloverine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Docusate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Esomeprazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Famotidine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Hyoscine butylbromide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Ispaghula husk	$\leftrightarrow$									
Lactulose	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Lansoprazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Linaclotide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Loperamide	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Macrogol (Polyethylene Glycol 3350)	↓	↓	₩	↓	$\leftrightarrow$	↓	↓	↓	↓	$\leftrightarrow$
Magnesium salts (oral)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓	↓	↓	$\leftrightarrow$	<b>+</b>
Mebeverine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Mesalazine (mesalamine)	$\leftrightarrow$									
Naloxegol	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Nizatidine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Psyllium husk	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Octreotide	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>1</b>	Π	$\leftrightarrow$	$\leftrightarrow$
Omeprazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>↑</b> 7%	<b>*</b>
Pantoprazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Prucalopride	$\leftrightarrow$	<b></b>								
Rabeprazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>*</b>
Ranitidine	$\leftrightarrow$	<b></b>								
Senna	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Sucralfate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>

# **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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### Notes:

Antacids + Dexamethasone (oral), Hydrocortisone, Methylprednisolone

Administration of oral dexamethasone, hydrocortisone or methylprednisolone and antacids should be separated by 2 hours.

Bisacodyl, Lactulose, Prucalopride, Senna + Dexamethasone, Hydrocortisone, Methylprednisolone

Close monitoring is advised as dexamethasone, hydrocortisone, methylprednisolone and laxatives may cause hypokalaemia (mainly in cases of laxative misuse/overdose) which increases the risk of torsade de pointes. Before the start of corticosteroid treatment, hypokalaemia should be corrected and patients should be monitored clinically, for electrolyte imbalance and by ECG.

Magnesium salts + Dexamethasone (oral), Hydrocortisone, Methylprednisolone

Administration of oral dexamethasone, hydrocortisone or methylprednisolone and magnesium salts should be separated by 2-4 hours.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

_	<u> </u>
	These drugs should not be coadministered
	Potential interaction which may require a dose adjustment or close monitoring.
	Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
П	No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Gastrointestinal Agents – Anti-emetics**

		Antivirals				Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Aprepitant	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cyclizine	$\leftrightarrow$									
Dolasetron	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Domperidone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dronabinol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Granisetron	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Hyoscine (Scopolamine)	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Hyoscine hydrobromide	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Metoclopramide	$\leftrightarrow$	<b></b>								
Ondansetron	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b> ♥	<b>+</b>
Prochlorperazine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>

# **Text Legend**

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- ↓ Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by <a href="www.crediblemeds.org">www.crediblemeds.org</a> as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **HCV DDAs**

		Antivirals			Corticosteroids			Host-directed		
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Elbasvir/Grazoprevir	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Glecaprevir/Pibrentasvir	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ledipasvir/Sofosbuvir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ombitasvir/Paritaprevir/r	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ombitasvir/Paritaprevir/r + Dasabuvir	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sofosbuvir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sofosbuvir/Velpatasvir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sofosbuvir/Velpatasvir/Voxilaprevir	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

- Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Ombitasvir/Paritaprevir/r ± Dasabuvir + Ensitrelvir

Ensitrelvir and ritonavir are strong inhibitors of CYP3A4. Ensitrelvir is unlikely to significantly alter ombitasvir, paritaprevir or dasabuvir given that ritonavir already strongly inhibits CYP3A4. Similarly, ritonavir is unlikely to significantly alter ensitrelvir given that ensitrelvir already strongly inhibits CYP3A4.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)			•	

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **HIV Antiretroviral Therapies**

			Antivirals	5		Со	rticostero	Host-directed		
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Abacavir	$\leftrightarrow$									
Albuvirtide	$\leftrightarrow$	$\leftrightarrow$	Ų.	↓ ↓	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Atazanavir alone	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Atazanavir + ritonavir	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ♥</b>	<b>+</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>+</b>
Atazanavir/cobicistat	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ♥</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\Leftrightarrow$
Bictegravir/emtricitabine/TAF	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\Leftrightarrow$
Cabotegravir (oral)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b>+</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>+</b>
Cabotegravir/rilpivirine (long acting)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\rightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Darunavir + ritonavir	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Darunavir/cobicistat	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>
Darunavir/cobi/emtricitabine/TAF	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dolutegravir	$\leftrightarrow$	<b>+</b>								
Dolutegravir/lamivudine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Dolutegravir/rilpivirine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	↔ ♥	↓ (RPV)	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>
Dolutegravir/abacavir/lamivudine	$\leftrightarrow$	<b>+</b>								
Doravirine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\downarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Doravirine/lamivudine/TDF	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>	↓ (DOR)	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>
Efavirenz	↓	$\leftrightarrow$	↓ (RTV)	V (RTV)	↔ ♥	$\downarrow$	₩.	. ↓	<b>+</b>	$\leftrightarrow$
Elvitegravir/cobi/emtricitabine/TAF	1	$\leftrightarrow$								
Elvitegravir/cobi/emtricitabine/TDF	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>
Emtricitabine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>
Emtricitabine/tenofovir alafenamide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$
Emtricitabine/tenofovir-DF	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Etravirine	↓	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	↓	↓	Ų.	<b>+</b>	<b>+</b>
Fostemsavir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	↔ ♥	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>
Ibalizumab-uiyk	$\leftrightarrow$									
Lamivudine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Lenacapavir	1	$\leftrightarrow$	1	1	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>
Lopinavir/ritonavir	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Maraviroc	<b>1</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\downarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Nevirapine	↓	$\leftrightarrow$	V (RTV)	V (RTV)	<b>+</b>	. ↓	↓	Ų .	$\leftrightarrow$	<b>+</b>
Raltegravir	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Rilpivirine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\downarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Rilpivirine/emtricitabine/TAF	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	↓ (RPV)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rilpivirine/emtricitabine/TDF	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ♥</b>	↓ (RPV)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Tenofovir-DF	$\leftrightarrow$									
Zidovudine	$\leftrightarrow$									

#### Text Legend

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

Dexamethasone: Note, any reduction in comedication concentrations may persist for up to 14 days after dexamethasone course is complete.

Cobicistat or ritonavir containing regimens + Nirmatrelvir/ritonavir

No dosage modification required but patients should be informed about the potential occurrence of adverse effects due to additional ritonavir.

Dolutegravir/Rilpivirine, Rilpivirine, Rilpivirine/Emtricitabine/TAF + Dexamethasone.

Dexamethasone is a dose dependent CYP3A4 inducer and may decrease rilpivirine concentrations due to induction of CYP3A4. Although the level of induction at the dose recommended for COVID (6 mg/day) is likely to be relatively modest, we advise either using hydrocortisone (IV, 200 mg/day) or, alternatively, giving dexamethasone but doubling the dose of rilpivirine to 50 mg once daily. This dose should be maintained for ~ 2 weeks after the end of treatment as any reduction in rilpivirine concentrations may persist for up to 14 days after stopping dexamethasone.

Zidovudine + Baricitinib, Tocilizumab: Use with caution due to potential additive toxicity.

#### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)			,	

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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

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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Hypertensives – ACE inhibitors**

			Antivirals	5		Со	rticostero	oids	Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Benazepril	$\leftrightarrow$									
Captopril	$\leftrightarrow$									
Cilazapril	$\leftrightarrow$									
Enalapril	$\leftrightarrow$									
Fosinopril	$\leftrightarrow$									
Lisinopril	$\leftrightarrow$									
Perindopril	$\leftrightarrow$	<b></b>								
Quinapril	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	<b>+</b>	<b></b>
Ramipril	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Trandolapril	$\leftrightarrow$	<b>+</b>								

### **Text Legend**

- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

# Hypertensives - Angiotensin antagonists

		Antivirals					rticostero	oids	Host-directed	
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Azilsartan	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Candesartan	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Eprosartan	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Irbesartan	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Losartan	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Olmesartan	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Telmisartan	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Valsartan	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

# **Text Legend**

- Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- $lap{1}{
  m }$  Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Losartan + Nirmatrelvir/ritonavir

Nirmatrelvir/ritonavir could potentially increase the conversion to the more pharmacologically active metabolite.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Hypertensives – Diuretics**

			Antivirals	6		Со	rticosterc	oids	Host-directed	
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	HC	MP	BAR	TCZ
Amiloride	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Bendroflumethiazide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Bumetanide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Chlortalidone (Chlorthalidone)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Furosemide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Hydrochlorothiazide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Indapamide	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Metolazone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Torasemide	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Triamterene	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	<b>↓</b>	$\leftrightarrow$	<b></b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Xipamide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

### **Text Legend**

- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- $\Downarrow$  Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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#### Notes:

Bendroflumethiazide, Chlortalidone, Furosemide, Hydrochlorothiazide, Indapamide, Metolazone, Torasemide, Xipamide

+ Dexamethasone, Hydrocortisone, Methylprednisolone

Close monitoring of potassium levels is advised as dexamethasone, hydrocortisone or methylprednisolone may cause hypokalaemia, the effect of which will be enhanced by the diuretic. In cases of hypokalaemia, potassium levels should be corrected.

### Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Hypertensives – Other agents

	Antivirals					Со	rticostero	oids	Host-a	+ cdirected   TCZ   + cdirected   TCZ   + cdirected   + c	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ	
Aliskiren	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Clonidine	$\leftrightarrow$										
Dopamine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	
Doxazosin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	
Eplerenone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Finerenone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Glyceryl trinitrate (Nitroglycerin)	$\leftrightarrow$										
Hydralazine	$\leftrightarrow$										
Isosorbide dinitrate	<b>↓</b>	$\leftrightarrow$	<b>↓</b>	<b>1</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Ivabradine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Labetalol	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Lacidipine	1	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Lercanidipine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Methyldopa	$\leftrightarrow$										
Midodrine	$\leftrightarrow$	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Minoxidil	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Moxonidine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Nicorandil	$\leftrightarrow$										
Prazosin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Ranolazine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Sacubitril	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Sodium nitroprusside	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Spironolactone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>*</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Terazosin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	

# **Text Legend**

- Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- ↑ Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Isosorbide dinitrate + Ensitrelvir or Nirmatrelvir/ritonavir Production of the active substance, nitric oxide, may be reduced.

Sacubitril + Nirmatrelvir/ritonavir

Exposure of sacubitril's active metabolite may be increased.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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 $\label{please check www.covid19-druginteractions.org for updates.} Please check www.covid19-druginteractions.org for updates.$ 

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Hypertensives - Pulmonary hypertension

			Antivirals	5		Со	rticostero	oids	Host-directed	
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Ambrisentan	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bosentan	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	₩	₩	₩	$\leftrightarrow$	$\leftrightarrow$
Epoprostenol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
lloprost	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Macitentan	1	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Riociguat	1	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Selexipag	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷
Sildenafil	1	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	÷
Tadalafil	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Treprostinil	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

### **Text Legend**

- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- ↑ Potential increased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by <a href="www.crediblemeds.org">www.crediblemeds.org</a> as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### Illicit/Recreational

		Antivirals					Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ	
Alcohol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	
Amphetamine	$\leftrightarrow$	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Cannabis (Marijuana)	$\leftrightarrow$	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Carfentanil	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Cocaine	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Ecstasy (MDMA)	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	
GHB (Gamma-hydroxybutyrate)	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Heroin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
LSD (Lysergic acid diethylamide)	1	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Methamphetamine	$\leftrightarrow$	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Poppers (Amyl nitrate)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	

# **Text Legend**

- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

Carfentanil

Carfentanil is an extremely strong opiate, reported to be up to 10,000 times more potent than morphine, and multiple deaths have resulted from its use. Advise patients to avoid.

Heroin + Nirmatrelvir/ritonavir

Coadministration may potentiate the effects of opiate in the CNS (via inhibition of P-gp at the blood-brain barrier). Monitor for opiate toxicity.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)			,	

•
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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

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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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

### **Immunosuppressants**

	Antivirals					Со	rticosterc	oids	Host-directed	
	ESV	MOL	NMV/r	NMV/r	RDV	DEX	HC	MP	BAR	TCZ
A1			5 days	≥10 days						
Abatacept	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Abrocitinib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Adalimumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Anti-thymocyte globulin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Apremilast	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Azathioprine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Basiliximab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Belatacept	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Belimumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Certolizumab pegol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$
Ciclosporin (Cyclosporine)	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>1</b> 29%	<del></del>
Dimethyl fumarate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Etanercept	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Everolimus	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\rightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Filgotinib	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Golimumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ixekizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Leflunomide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Methotrexate	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Mycophenolate	$\leftrightarrow$	$\leftrightarrow$	↑↓	$\uparrow\downarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pirfenidone	$\leftrightarrow$	$\leftrightarrow$	<b>1</b>	<del></del>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Risankizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Secukinumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Sirolimus	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<del>\</del>
Tacrolimus	<u> </u>	$\leftrightarrow$	<u> </u>	<u> </u>	↔ ♥	<del></del>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\downarrow$
Tofacitinib	<b>†</b>	$\leftrightarrow$	<b>↑</b>	<b>†</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Upadacitinib	<u> </u>	$\leftrightarrow$	<b>†</b>	<u> </u>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ustekinumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$
Vedolizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$
Voclosporin	<u> </u>	↔	<u> </u>	<b>1</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

# **Text Legend**

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- ↓ Potential decreased exposure of the comedication
- ↑ Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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# Notes:

Baricitinib, Tocilizumab: Coadministration may not be recommended due to potential additive immunosuppression, increased risk of infection and/or additive haematological toxicity. Alternatively, caution (and additional monitoring) may be required due to additive haematological toxicity. See <a href="https://www.covid19-druginteractions.org">www.covid19-druginteractions.org</a> for details.

Ciclosporin, Everolimus, Sirolimus, Tacrolimus + Dexamethasone

Any reduction in comedication concentrations may persist for up to 14 days after dexamethasone course is complete.

Ciclosporin + Nirmatrelvir/ritonavir:

Management of this interaction is challenging and would require dosage adjustment and therapeutic drug monitoring of ciclosporin which may not be possible given the short duration of nirmatrelvir/ritonavir treatment. An alternative COVID treatment will need to be considered. If TDM is available, see <a href="https://www.covid19-druginteractions.org">www.covid19-druginteractions.org</a> for details of dose modifications and TDM schedule. Everolimus, Sirolimus + Nirmatrelvir/ritonavir:

A large increase in everolimus and sirolimus exposure is predicted in presence of NMV/r. Avoid use of NMV/r unless close monitoring of everolimus and sirolimus concentrations is feasible. If TDM is available, see <a href="https://www.covid19-druginteractions.org">www.covid19-druginteractions.org</a> for details of dose modifications and TDM schedule.

Tacrolimus + Nirmatrelvir/ritonavir:

Management of this interaction is challenging and would require a substantial reduction in tacrolimus dosage. Consider an alternative COVID treatment. If TDM is available, see <a href="https://www.covid19-druginteractions.org">www.covid19-druginteractions.org</a> for details of dose modifications and TDM schedule.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)			,	

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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 ${\bf Please\ check\ www.covid 19-drug interactions.org\ for\ updates.}$ 

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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Inotropes & Vasopressors

			Antivirals	}		Со	rticosterc	Host-directed		
	ESV	MOL		<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Adrenaline (Epinephrine)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Desmopressin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dobutamine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Noradrenaline	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Vasopressin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

#### **Text Legend**

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- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

▼ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

•	orear Legeria
	These drugs should not be coadministered
	Potential interaction which may require a dose adjustment or close monitoring.
	Potential interaction likely to be of weak intensity.  Additional action/monitoring or dosage adjustment unlikely to be required.
Г	No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Lipid Lowering Agents**

	Antivirals				Со	rticosterc	oids	Host-directed		
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Alirocumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Atorvastatin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bempedoic acid	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>→</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Bezafibrate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Clofibrate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Colesevelam	↓	<b>↓</b>	₩	↓	$\leftrightarrow$	↓	↓	↓	↓	$\leftrightarrow$
Colestyramine (cholestyramine)	↓	↓	₩	↓	$\leftrightarrow$	↓	↓	↓	↓	$\leftrightarrow$
Evolocumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ezetimibe	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Fenofibrate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Fish oils	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Fluvastatin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Gemfibrozil	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Icosapent ethyl	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Inclisiran	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Lomitapide	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Lovastatin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Omega-3 fatty acids	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pitavastatin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pravastatin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rosuvastatin	<b>1</b> 65%	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Simvastatin	1	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓ 17%	<b>↓</b> 57%

### **Text Legend**

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- ↓ Potential decreased exposure of the comedication
- 1 Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow$  No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

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# Notes:

Atorvastatin + Ensitrelvir

If possible, pause atorvastatin during ensitrely ir treatment and for up to 10 days after the last dose ensitrely ir.

Bempedoic acid + Baricitinib or Tocilizumab

Caution is required due to potential additive haematological toxicity.

Lovastatin, Simvastatin + Ensitrelvir

The statin should be stopped at least 12 hours prior to initiation of ensitrelvir and not resumed until 10 days post last dose of ensitrelvir.

Atorvastatin, Rosuvastatin + Nirmatrelvir/ritonavir

If possible, the statin should be stopped for the duration of nirmatrelvir/ritonavir therapy and restarted at least 3 days after the last dose of nirmatrelvir/ritonavir.

Lovastatin, Simvastatin + Nirmatrelvir/ritonavir

The statin should be stopped at least 12 hours prior to initiation of nirmatrelvir/ritonavir therapy and restarted at least 3 days after the last dose of nirmatrelvir/ritonavir but preferably 5 days after completing nirmatrelvir/ritonavir treatment due to the large inter-individual variability in the disappearance of CYP3A4 inhibition.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)			,	

•
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Multiple Sclerosis Agents

		Antivirals					Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ	
Alemtuzumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	
Baclofen	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Cladribine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Dantrolene sodium	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Dimethyl fumarate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Fampridine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Fingolimod	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Glatiramer acetate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Natalizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Ocrelizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Ozanimod	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Peginterferon beta-1a	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Siponimod	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Teriflunomide	$\leftrightarrow$										

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- ↓ Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

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#### Notes:

Alemtuzumab, Cladribine, Natalizumab, Ocrelizumab, Ozanimod, Teriflunomide + Baricitinib, Tocilizumab Caution is advised due to the potential for enhanced immunosuppression with the combination.

# Fingolimod + Baricitinib, Tocilizumab

Additional immunosuppressive therapies, such as baricitinib or tocilizumab, should be used with caution with fingolimod, due to additive effects.

### Peginterferon beta-1a + Baricitinib, Tocilizumab

Additional monitoring should be considered as there may be a risk of additive haematological toxicity.

### Siponimod + Dexamethasone, Hydrocortisone, Methylprednisolone

Caution is advised when administering with another immunosuppressant, such as these corticosteroids, due to possible additive effect.

#### Siponimod + Baricitinib, Tocilizumab

Caution is advised when administering with another immunosuppressant, such as baricitinib or tocilizumab, due to possible additive effect.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

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Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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 $\label{please check www.covid19-druginteractions.org for updates.} Please check www.covid19-druginteractions.org for updates.$ 

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Ophthalmological Agents

	Antivirals  ESV   MOL   NMV/r   NMV/r   RDV   5 days   ≥10 days						Corticosteroids DEX HC MP			Host-directed BAR TCZ	
Brimonidine	$\leftrightarrow$	$\leftrightarrow$	⇒ days	≥ 10 days	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Brinzolamide	<b>1</b>	$\leftrightarrow$	<b>1</b>	<b>↑</b>	<del>∀</del>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	
Brolucizumab	↔	<del> </del>	$\leftrightarrow$	↔	<del>∨</del>	↔	↔	↔	↔	<b>↔</b>	
Latanoprost	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Ranibizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Travoprost	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	

# **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

◆ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Others (A-L)

		Antivirals				Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	нс	MP	BAR	TCZ
Acetazolamide	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Acetylcysteine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Acitretin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Allopurinol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Atropine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Benralizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Betahistine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cannabidiol	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Carbimazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cinacalcet	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b>↔ ∀</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Clomifene	$\leftrightarrow$	$\leftrightarrow$	↑↓	↑↓	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Colchicine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Crizanlizumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Cytisine (Cytisinicline)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Deferasirox	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Denosumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Disulfiram	^↓	$\leftrightarrow$	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Drotaverine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Dupilumab	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ergometrine (Ergonovine)	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Febuxostat	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\downarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Fezolinetant	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Filgrastim	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Finasteride (1 mg)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Flibanserin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Goserelin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>
Interferon beta	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Isosorbide mononitrate	$\uparrow\downarrow$	$\leftrightarrow$	$\uparrow\downarrow$	$\uparrow\downarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ivermectin	1	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Leuprorelin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Levothyroxine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$
Liothyronine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

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- ↑ Potential increased exposure of COVID drug
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### Notes:

Baricitinib, Tocilizumab: Caution is required due to potential additive haematological toxicity.

Alfuzosin + Nirmatrelvir/ritonavir: Given the short duration of nirmatrelvir/ritonavir treatment, alfuzosin should be stopped for the duration of nirmatrelvir/ritonavir therapy and restarted 3 days after the last dose of nirmatrelvir/ritonavir.

Clomifene + Nirmatrelvir/ritonavir: Potential for limited increase in clomifene concentrations and decrease in concentrations of the active metabolite.

Disulfiram or Isosorbide mononitrate + EnsitreIvir or NirmatreIvir/ritonavir: Conversion to the active metabolite/product may be inhibited, leading to a reduced clinical effect. No effect on disulfiram expected with NMV/r ≥10 days due to the mixed effect on CYP3A4 (inhibition) and UGT (induction).

# Abbreviations

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NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Others (M-Z)

	Antivirals				Со	rticostero	oids	Host-directed		
	ESV	MOL	NMV/r		RDV	DEX	НС	MP	BAR	TCZ
Magnesium sulphate (IV)	$\leftrightarrow$									
Melatonin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>→</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Mepolizumab	$\leftrightarrow$									
Methimazole	$\leftrightarrow$									
Methylergometrine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Misoprostol	$\leftrightarrow$									
Modafinil	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	↓	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Naftidrofuryl	$\leftrightarrow$									
Naloxone	$\leftrightarrow$									
Naltrexone	$\leftrightarrow$									
Neostigmine	$\leftrightarrow$									
Nicotine	$\leftrightarrow$									
Nintedanib	<b>↑</b>	$\leftrightarrow$	1	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Omalizumab	$\leftrightarrow$									
Orlistat		↓	₩	↓	$\leftrightarrow$	↓	↓	↓	↓	$\leftrightarrow$
Ospemifene	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pancreatic enzymes (Creon)	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b></b>						
Pentoxifylline	$\leftrightarrow$									
Phentermine	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Phenylephrine	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b></b>
Pilocarpine	$\leftrightarrow$									
Potassium	$\leftrightarrow$									
Probenecid	$\leftrightarrow$									
Propylthiouracil	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>\</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pyridostigmine	$\leftrightarrow$									
Raloxifene	$\leftrightarrow$									
Sevelamer	↓	↓	₩	↓	$\leftrightarrow$	↓	↓	↓	↓	$\leftrightarrow$
Sulfasalazine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Tolvaptan	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Triclabendazole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Triptorelin	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ursodeoxycholic acid (Ursodiol)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Varenicline	$\leftrightarrow$									

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#### Notes:

Baricitinib, Tocilizumab:

Caution is required due to potential additive haematological toxicity.

# Abbreviations

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MOL	Molnupiravir (Lagevrio™)	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Overactive Bladder Agents**

		Antivirals					Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	HC	MP	BAR	TCZ	
Darifenacin	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Fesoterodine	<b>↑</b>	$\leftrightarrow$	1	<b>↑</b>	÷	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Mirabegron	1	$\leftrightarrow$	1	<b>↑</b>	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Oxybutynin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Solifenacin	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Tolterodine	<b>↑</b>	$\leftrightarrow$	1	1	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Trospium	$\leftrightarrow$										

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- Potential decreased exposure of COVID drug
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#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
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NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

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Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# **Parkinsonism Agents**

	Antivirals					Corticosteroids			Host-directed	
	ESV	MOL	NMV/r 5 days	NMV/r ≥10 days	RDV	DEX	НС	MP	BAR	TCZ
Amantadine	$\leftrightarrow$									
Apomorphine	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↔ ♥	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Benserazide/levodopa	$\leftrightarrow$									
Benzatropine (Benztropine)	$\leftrightarrow$									
Biperiden	$\leftrightarrow$									
Cabergoline	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Carbidopa	$\leftrightarrow$									
Carbidopa/levodopa	$\leftrightarrow$	$\leftrightarrow$	?	?	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Levodopa	$\leftrightarrow$									
Orphenadrine	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Piribedil	1	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Pramipexole	$\leftrightarrow$									
Procyclidine	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	↑↓	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rasagiline	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Ropinirole	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>↓</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Rotigotine	$\leftrightarrow$									

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- → No significant effect

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# Notes:

Carbidopa/levodopa + Nirmatrelvir/ritonavir:

Enhanced levodopa effects including severe diskinesias were described in a case report after initiation of an antiretroviral regimen containing indinavir to an individual who was previously stable on levodopa/carbidopa therapy. Based on this isolated case, the risk of an interaction with ritonavir is unclear.

Procyclidine + Nirmatrelvir/ritonavir (≥10 days):

When nirmatrelvir/ritonavir is used for an extended treatment duration (10 days or longer), ritonavir could increase procyclidine exposure by CYP inhibition but may induce glucuronidation thereby mitigating the inhibitory effect. The clinical relevance of the interaction is unknown.

#### **Abbreviations**

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklurv™)				

•
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



Charts revised 18 December 2023

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Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Steroids

	Antivirals					Со	rticostero	oids	Host-directed		
	ESV	MOL	NMV/r 5 days	<b>NMV/r</b> ≥10 days	RDV	DEX	НС	MP	BAR	TCZ	
Beclometasone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Betamethasone	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	$\leftrightarrow$	↓	₩	₩	$\leftrightarrow$	$\leftrightarrow$	
Budesonide (oral/rectal)	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Ciclesonide	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Clobetasol	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Dexamethasone (>16 mg)	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$		↓	↓	$\leftrightarrow$	$\leftrightarrow$	
Difluprednate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Fludrocortisone	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Flunisolide	1	$\leftrightarrow$	$\leftrightarrow$	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Fluocinolone	<b>+</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b></b>	
Fluticasone	<b>↑</b>	$\leftrightarrow$	<b>+</b>	<b>↑</b>	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	<b></b>	
Hydrocortisone (topical)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Megestrol acetate	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Methylprednisolone (topical)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Mometasone	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Nandrolone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Oxandrolone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Prednisolone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Prednisone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Stanozolol	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Testosterone	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	
Triamcinolone	<b>↑</b>	$\leftrightarrow$	<b>↑</b>	1	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	

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- 1 Potential increased exposure of COVID drug
- ↓ Potential decreased exposure of COVID drug
- $\leftrightarrow \text{No significant effect}$

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# Abbreviations

ESV	Ensitrelvir (Xocova™)	DEX	Dexamethasone	BAR	Baricitinib
MOL	Molnupiravir <i>(Lagevrio™)</i>	HC	Hydrocortisone	TCZ	Tocilizumab
NMV/r	Nirmatrelvir/ritonavir (Paxlovid™)	MP	Methylprednisolone		
RDV	Remdesivir (Veklury™)				

<u> </u>
These drugs should not be coadministered
Potential interaction which may require a dose adjustment or close monitoring.
Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
No clinically significant interaction expected



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# Interactions with Key COVID-19 Therapies

Charts revised 18 December 2023

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.

Management of interactions with nirmatrelvir/ritonavir (Paxlovid) may be complex and full details should be obtained from the website.

# Vitamins/Supplements/Herbals

	Antivirals					Со	rticosterc	oids	Host-directed	
	ESV	MOL		NMV/r	RDV	DEX	HC	MP	BAR	TCZ
African potato	?	$\leftrightarrow$	5 days ↔	≥10 days	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	↓	$\leftrightarrow$
Ayahuasca	÷	$\leftrightarrow$	<b>→</b>	<b>↑</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Calcium supplements									$\leftrightarrow$	$\leftrightarrow$
Cat's claw (Uncaria tomentosa)	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	$\leftrightarrow$	<b>↔ ↔</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Coenzyme Q10 (Ubidecarenone)	— II ↔	$\leftrightarrow$	# <b>↔</b>	↔	<b>↔</b>	$\leftrightarrow$	<b>→</b>	$\leftrightarrow$	<b>↔</b>	<b>↔</b>
Ferrous fumarate										
Ferrous sulfate	<b>↔</b>									
Folic acid	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>
Glucosamine	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	<b>↔</b>	<b>↔</b>	<b>↔</b>
	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$	<b>↔</b>	<b>↔</b>	$\leftrightarrow$	<b>↔</b>
Homeopathic remedies	$\leftrightarrow$									
lodine	$\leftrightarrow$									
Iron supplements	$\leftrightarrow$									
Milk thistle (Silymarin)	$\leftrightarrow$									
Multivitamins	$\leftrightarrow$									
Nicotinamide (Niacinamide)	$\leftrightarrow$	$\leftrightarrow$	<b>↔</b>	$\leftrightarrow$						
Red yeast rice	<u> </u>	$\leftrightarrow$	<b>↑</b>	<b>↑</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
St John's wort	↓	$\leftrightarrow$	↓	↓	⇒	↓	↓	↓	$\leftrightarrow$	$\leftrightarrow$
Turmeric (Curcumin)	$\leftrightarrow$									
Vitamin A (Retinol)	$\leftrightarrow$									
Vitamin B1 (Thiamine)	$\leftrightarrow$									
Vitamin B12 (Cyanocobalamin)	$\leftrightarrow$									
Vitamin B2 (Riboflavin)	$\leftrightarrow$									
Vitamin B3 (Niacin, nicotinic acid)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>*</b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Vitamin B6 (Pyridoxine)	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	<b>*</b>	$\leftrightarrow$
Vitamin B7 (Biotin)	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b>+</b>	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Vitamin C (Ascorbic Acid)	$\leftrightarrow$									
Vitamin D2 (Ergocalciferol)	$\leftrightarrow$									
Vitamin D3 (Colecalciferol)	$\leftrightarrow$									
Vitamin E (Tocopherol)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Vitamin K (Phytomenadione)	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$
Zinc	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	<b></b>	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$	$\leftrightarrow$

### **Text Legend**

- Potential increased exposure of the comedication
- Potential decreased exposure of the comedication
- Potential increased exposure of COVID drug
- Potential decreased exposure of COVID drug
- → No significant effect

Numbers refer to increase/decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by www.crediblemeds.org as having a known, possible or conditional risk of QT prolongation and/or TdP. Risk may be related to dose or concentration (due to DDIs) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

#### Notes:

African potato + Ensitrelvir:

The clinical relevance of the inducing effect of African potato is unknown as ensitrelyir is a strong inhibitor of CYP3A4 and may compensate the inducing effect. No dose adjustment is required.

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