

# Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 1 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Contents

Anaesthetics & Muscle Relaxants.....	2
Analgesics .....	3
Antiarrhythmics .....	4
Antibacterials.....	5
Anti-coagulant, Anti-platelet and Fibrinolytic .....	6
Anticonvulsants .....	7
Antidepressants.....	8
Anti-diabetics.....	9
Antifungals.....	10
Antipsychotics/Neuroleptics .....	11
Anxiolytics/Hypnotics/Sedatives .....	12
Beta Blockers .....	13
Bronchodilators .....	14
Calcium Channel Blockers .....	15
Contraceptives/HRT - Contraceptives .....	16
Contraceptives/HRT - Hormone Replacement Therapy.....	17
Covid-19 Antiviral Therapies .....	18
Covid-19 Immune Therapies .....	19
Gastrointestinal Agents .....	20
Gastrointestinal Agents – Anti-emetics.....	21
HCV DDAs .....	22
HIV Antiretroviral Therapies.....	23
Hypertensives – ACE inhibitors .....	24
Hypertensives – Angiotensin antagonists .....	24
Hypertensives – Diuretics.....	24
Hypertensives – Other agents .....	25
Hypertensives – Pulmonary hypertension .....	26
Immunosuppressants .....	27
Inotropes & Vasopressors .....	28
Lipid Lowering Agents .....	29
Others .....	30
Steroids.....	31

### Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

### Colour Legend

	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

© Liverpool Drug Interaction Group, University of Liverpool, Pharmacology Research Labs, 1st Floor Block H, 70 Pembroke Place, LIVERPOOL, L69 3GF

We aim to ensure that information is accurate and consistent with current knowledge and practice. However, the University of Liverpool and its servants or agents shall not be responsible or in any way liable for the continued currency of information in this publication whether arising from negligence or otherwise howsoever or for any consequences arising therefrom. The University of Liverpool expressly exclude liability for errors, omissions or inaccuracies to the fullest extent permitted by law.

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 2 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Anaesthetics &amp; Muscle Relaxants

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Alcuronium	↔	↔	↔	↔	↔	↔	↔	↔
Bupivacaine	↓	↔	↓	↔	↔	↔	↓	↓
Cisatracurium	↔	↔	↔	↔	↔	↔	↔	↔
Desflurane	↔	↔	↔	↔	↔	↔	↔	↔
Dexmedetomidine	↔	↔	↔	↔	↔	↔	↔	↔
Enflurane	↔	↔	↔	↔	↔	↔	↔	↔
Ephedrine	↔	↔	↔	↔	↔	↔	↔	↔
Etidocaine	↓	↔	↓	↔	↔	↔	↓	↓
Halothane	↔	↔	↔	↔	↔	↔	↔	↔
Isoflurane	↔	↔	↔	↔	↔	↔	↔	↔
Ketamine	↓	↔	↓	↔	↔	↔	↓	↓
Minaxolone	↔	↔	↔	↔	↔	↔	↔	↔
Nitrous oxide	↔	↔	↔	↔	↔	↔	↔	↔
Propofol	↔	↔	↔	↔	↔	↔	↔	↔
Rocuronium	↔	↔	↔	↔	↔	↔	↔	↔
Sevoflurane	↔	↔	↔	↔	↔	↔	↔	↔
Sufentanil	↓	↔	↓	↔	↔	↔	↓	↓
Suxamethonium (succinylcholine)	↔	↔	↔	↔	↔	↔	↔	↔
Tetracaine	↔	↔	↔	↔	↔	↔	↔	↔
Thiopental	↔	↔	↔	↔	↔	↔	↔	↔
Tizanidine	↔	↔	↔	↔	↔	↔	↔	↔
Vecuronium	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 3 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Analgesics

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Alfentanil	↓	↔	↓	↔	↔	↔	↓	↓
Aspirin	↔	↔	↔	↔	↔	↔	↔	↔
Buprenorphine	↓	↔	↓	↔	↔	↔	↓	↓
Celecoxib	↔	↔	↔	↔	↔	↔	↔	↔
Codeine	↔	↔	↔	↔	↔	↔	↔	↔
Dextropropoxyphene	↓	↔	↓	↔	↔	↔	↓	↓
Diamorphine (diacetylmorphine)	↔	↔	↔	↔	↔	↔	↔	↔
Diclofenac	↔	↑	↔	↔	↔	↔	↔	↔
Dihydrocodeine	↔	↔	↔	↔	↔	↔	↔	↔
Fentanyl	↓	↔	↓	↔	↔	↔	↓	↓
Hydrocodone	↔	↔	↔	↔	↔	↔	↔	↔
Hydromorphone	↔	↔	↔	↔	↔	↔	↔	↔
Ibuprofen	↔	↑	↔	↔	↔	↔	↔	↔
Mefenamic acid	↔	↔	↔	↔	↔	↔	↔	↔
Metamizole	↔	↔	↔	↓	↓	↔	↔	↔
Methadone	↔	↔	↔	↔	↔	↔	↔	↔
Morphine	↔	↔	↔	↔	↔	↔	↔	↔
Naproxen	↔	↔	↔	↔	↔	↔	↔	↔
Nimesulide	↔	↔	↔	↔	↔	↔	↔	↔
Oxycodone	↓	↔	↓	↔	↔	↔	↓	↓
Paracetamol (Acetaminophen)	↔	↔	↔	↔	↔	↔	↔	↔
Pethidine (Meperidine)	↔	↔	↔	↔	↔	↔	↔	↔
Piroxicam	↔	↔	↔	↔	↔	↔	↔	↔
Remifentanyl	↔	↔	↔	↔	↔	↔	↔	↔
Tapentadol	↔	↔	↔	↔	↔	↔	↔	↔
Tramadol	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Aspirin, celecoxib, diclofenac, ibuprofen, mefenamic acid, naproxen, nimesulide, piroxicam + Dexamethasone or hydrocortisone*  
Patients should be monitored since the incidence and/or severity of gastro-intestinal ulceration may increase.

*Metamizole + Anakinra, baricitinib, canakinumab, ruxolitinib, sarilumab, tocilizumab*  
Coadministration should be avoided due to the increased risk of haematological toxicity.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 4 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Antiarrhythmics

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Amiodarone	↓	↔	↓	↔	↔	↔	↓	↓
Bepidil	↔	↔	↔	↔	↔	↔	↔	↔
Disopyramide	↔	↔	↔	↔	↔	↔	↔	↔
Dofetilide	↔	↔	↔	↔	↔	↔	↔	↔
Flecainide	↔	↔	↔	↔	↔	↔	↔	↔
Lidocaine (Lignocaine)	↔	↔	↔	↔	↔	↔	↔	↔
Mexiletine	↔	↔	↔	↔	↔	↔	↔	↔
Propafenone	↔	↔	↔	↔	↔	↔	↔	↔
Quinidine	↓	↔	↓	↔	↔	↔	↓	↓

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Amiodarone + Dexamethasone or hydrocortisone*

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

*Bepidil, disopyramide, dofetilide, flecainide, lidocaine, mexiletine, propafenone, quinidine + Dexamethasone or hydrocortisone*

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

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 5 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Antibacterials

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Ciprofloxacin	↔	↔	↔	↔	↔	↑	↔	↔
Clarithromycin	↔	↔	↔	↔	↔	↑	↔	↔
Erythromycin	↔	↔	↔	↔	↔	↑ 27%	↔	↔
Linezolid	↔	↔	↔	↔	↔	↔	↔	↔
Rifabutin	↔	↔	↔	↓	↓	↓	↔	↔
Rifampicin	↔	↓ 34%	↔	↓	↓	↓ 71%	↔	↔
Rifapentine	↔	↔	↔	↓	↓	↓	↔	↔
Telithromycin	↔	↔	↔	↔	↔	↑	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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

Caution is required due to potential additive haematological toxicity.

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

Amikacin	Dapsone	Ofloxacin
Amoxicillin	Delamanid	Para-aminosalicylic acid
Ampicillin	Doxycycline	Penicillins
Bedaquiline	Ertapenem	Piperacillin
Capreomycin	Ethambutol	Pyrazinamide
Cefalexin	Ethionamide	Rifaximin
Cefazolin	Flucloxacillin	Spectinomycin
Cefixime	Gentamicin	Streptomycin
Cefotaxime	Imipenem/Cilastatin	Sulfadiazine
Ceftazidime	Isoniazid	Tazobactam
Ceftriaxone	Kanamycin	Tetracyclines
Chloramphenicol	Levofloxacin	Tinidazole
Clavulanic acid	Meropenem	Trimethoprim/Sulfamethoxazole
Clindamycin	Metronidazole	Vancomycin
Clofazimine	Moxifloxacin	
Cloxacillin	Nitrofurantoin	
Cycloserine		

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 6 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Anti-coagulant, Anti-platelet and Fibrinolytic

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Acenocoumarol	↓	↔	↓	↔	↔	↔	↓	↓
Apixaban	↓	↔	↓	↓	↔	↔	↓	↓
Argatroban	↔	↔	↔	↔	↔	↔	↔	↔
Aspirin (anti-platelet)	↔	↔	↔	↔	↔	↔	↔	↔
Betrixaban	↔	↔	↔	↓	↔	↔	↔	↔
Clopidogrel	↓	↔	↓	↔	↔	↔	↓	↓
Dabigatran	↔	↔	↔	↓	↔	↑	↔	↔
Dalteparin	↔	↔	↔	↔	↔	↔	↔	↔
Dipyridamole	↔	↔	↔	↔	↔	↔	↔	↔
Edoxaban	↔	↔	↔	↓	↔	↑	↔	↔
Eltrombopag	↔	↔	↔	↔	↔	↔	↔	↔
Enoxaparin	↔	↔	↔	↔	↔	↔	↔	↔
Fondaparinux	↔	↔	↔	↔	↔	↔	↔	↔
Heparin	↔	↔	↔	↔	↔	↔	↔	↔
Phenprocoumon	↓	↔	↓	↔	↔	↔	↓	↓
Prasugrel	↓	↔	↓	↔	↔	↔	↓	↓
Rivaroxaban	↓	↔	↓	↓	↔	↔	↓	↓
Streptokinase	↔	↔	↔	↔	↔	↔	↔	↔
Ticagrelor	↓	↔	↓	↔	↔	↑	↓	↓
Tinzaparin	↔	↔	↔	↔	↔	↔	↔	↔
Warfarin	↓	↔	↓	↔	↔	↔	↓	↓

## 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 or decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Acenocoumarol, phenprocoumon, warfarin + Anakinra, canakinumab, sarilumab or tocilizumab*  
Monitor INR with vitamin K antagonists (e.g., acenocoumarol, phenprocoumon, warfarin).

*Acenocoumarol, phenprocoumon, warfarin + Dexamethasone or hydrocortisone*

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, and alternatives e.g. low molecular weight heparins may be considered in patients with severe COVID19 disease. Note, any reduction in drug concentrations may persist for up to 14 days after dexamethasone course is complete.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 7 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Anticonvulsants

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Carbamazepine	↓	↔	↓	↓	↓	↓	↓	↓
Clonazepam	↔	↔	↔	↔	↔	↔	↔	↔
Eslicarbazepine	↔	↔	↔	↓	↓	↓	↔	↔
Ethosuximide	↔	↔	↔	↔	↔	↔	↔	↔
Gabapentin	↔	↔	↔	↔	↔	↔	↔	↔
Lacosamide	↔	↔	↔	↔	↔	↔	↔	↔
Lamotrigine	↔	↔	↔	↔	↔	↔	↔	↔
Levetiracetam	↔	↔	↔	↔	↔	↔	↔	↔
Oxcarbazepine	↔	↔	↔	↓	↓	↓	↔	↔
Perampanel	↔	↔	↔	↔	↔	↔	↔	↔
Phenobarbital (Phenobarbitone)	↓	↔	↓	↓	↓	↓	↓	↓
Phenytoin	↓	↔	↓	↓	↓	↓	↓	↓
Pregabalin	↔	↔	↔	↔	↔	↔	↔	↔
Primidone	↓	↔	↓	↓	↓	↓	↓	↓
Retigabine	↔	↔	↔	↔	↔	↔	↔	↔
Rufinamide	↔	↔	↔	↓	↓	↓	↔	↔
Sultiame	↔	↔	↔	↔	↔	↑	↔	↔
Tiagabine	↔	↔	↔	↔	↔	↔	↔	↔
Topiramate	↔	↔	↔	↔	↔	↓	↔	↔
Valproate (Divalproex)	↔	↔	↔	↔	↔	↔	↔	↔
Vigabatrin	↔	↔	↔	↔	↔	↔	↔	↔
Zonisamide	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.
- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

# Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 8 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Antidepressants

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Agomelatine	↔	↔	↔	↔	↔	↔	↔	↔
Amitriptyline	↔	↔	↔	↔	↔	↔	↔	↔
Bupropion	↔	↔	↔	↔	↔	↔	↔	↔
Citalopram	↔	↔	↔	↔	↔	↔	↔	↔
Clomipramine	↔	↔	↔	↔	↔	↔	↔	↔
Desipramine	↔	↔	↔	↔	↔	↔	↔	↔
Doxepin	↔	↔	↔	↔	↔	↔	↔	↔
Duloxetine	↔	↔	↔	↔	↔	↔	↔	↔
Escitalopram	↔	↔	↔	↔	↔	↔	↔	↔
Fluoxetine	↔	↔	↔	↔	↔	↔	↔	↔
Fluvoxamine	↔	↔	↔	↔	↔	↔	↔	↔
Imipramine	↔	↔	↔	↔	↔	↔	↔	↔
Lithium	↔	↔	↔	↔	↔	↔	↔	↔
Maprotiline	↔	↔	↔	↔	↔	↔	↔	↔
Mianserin	↔	↔	↔	↔	↔	↔	↔	↔
Milnacipran	↔	↔	↔	↔	↔	↔	↔	↔
Mirtazapine	↔	↔	↔	↔	↔	↔	↔	↔
Nefazodone	↔	↔	↔	↔	↔	↑	↔	↔
Nortriptyline	↔	↔	↔	↔	↔	↔	↔	↔
Paroxetine	↔	↔	↔	↔	↔	↔	↔	↔
Phenelzine	↔	↔	↔	↔	↔	↔	↔	↔
Reboxetine	↔	↔	↔	↔	↔	↔	↔	↔
Sertraline	↔	↔	↔	↔	↔	↔	↔	↔
St John's wort	↔	↔	↔	↓	↓	↓	↔	↔
Tranlycypromine	↔	↔	↔	↔	↔	↔	↔	↔
Trazodone	↔	↔	↔	↔	↔	↔	↔	↔
Trimipramine	↔	↔	↔	↔	↔	↔	↔	↔
Venlafaxine	↔	↔	↔	↔	↔	↔	↔	↔
Vortioxetine	↔	↔	↔	↔	↔	↔	↔	↔

### 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 or decrease in AUC as observed in drug-drug interaction studies.  
 ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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 or hydrocortisone

If electrolyte imbalance occurs with dexamethasone or hydrocortisone, 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.

### Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

### Colour Legend

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



## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 9 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Anti-diabetics

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Acarbose	↔	↔	↔	↔	↔	↔	↔	↔
Canagliflozin	↔	↔	↔	↔	↔	↔	↔	↔
Dapagliflozin	↔	↔	↔	↔	↔	↔	↔	↔
Dulaglutide	↔	↔	↔	↔	↔	↔	↔	↔
Empagliflozin	↔	↔	↔	↔	↔	↑	↔	↔
Exenatide	↔	↔	↔	↔	↔	↔	↔	↔
Glibenclamide (Glyburide)	↔	↔	↔	↔	↔	↔	↔	↔
Gliclazide	↔	↔	↔	↔	↔	↔	↔	↔
Glimepiride	↔	↔	↔	↔	↔	↔	↔	↔
Glipizide	↔	↔	↔	↔	↔	↔	↔	↔
Insulin	↔	↔	↔	↔	↔	↔	↔	↔
Linagliptin	↔	↔	↔	↔	↔	↔	↔	↔
Liraglutide	↔	↔	↔	↔	↔	↔	↔	↔
Metformin	↔	↔	↔	↔	↔	↔	↔	↔
Nateglinide	↔	↔	↔	↔	↔	↔	↔	↔
Pioglitazone	↔	↔	↔	↔	↔	↔	↔	↔
Repaglinide	↔	↔	↔	↔	↔	↔	↔	↔
Rosiglitazone	↔	↔	↔	↔	↔	↔	↔	↔
Saxagliptin	↔	↔	↔	↔	↔	↔	↔	↔
Sitagliptin	↔	↔	↔	↔	↔	↔	↔	↔
Tolbutamide	↔	↔	↔	↔	↔	↔	↔	↔
Vildagliptin	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.
- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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 + Dexamethasone or hydrocortisone**

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

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 10 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Antifungals

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Amphotericin B	↔	↔	↔	↔	↔	↔	↔	↔
Anidulafungin	↔	↔	↔	↔	↔	↔	↔	↔
Caspofungin	↔	↔	↔	↔	↔	↔	↔	↔
Fluconazole	↔	↑ 22%	↔	↔	↔	↑ 232%	↔	↔
Flucytosine	↔	↔	↔	↔	↔	↔	↔	↔
Griseofulvin	↔	↔	↔	↓	↓	↓	↔	↔
Isavuconazole	↔	↔	↔	↔	↔	↑	↔	↔
Itraconazole	↔	↔	↔	↔	↔	↑	↔	↔
Ketoconazole	↔	↑ 21%	↔	↔	↔	↑ 91%	↔	↔
Micafungin	↔	↔	↔	↔	↔	↔	↔	↔
Miconazole	↔	↔	↔	↔	↔	↑	↔	↔
Nystatin	↔	↔	↔	↔	↔	↔	↔	↔
Posaconazole	↔	↔	↔	↔	↔	↑	↔	↔
Terbinafine	↔	↔	↔	↔	↔	↔	↔	↔
Voriconazole	↔	↔	↔	↔	↔	↑	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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 or hydrocortisone*

Close monitoring is advised as dexamethasone, hydrocortisone 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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 11 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Antipsychotics/Neuroleptics

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Amisulpride	↔	↔	↔	↔	↔	↔	↔	↔
Aripiprazole	↔	↔	↔	↔	↔	↔	↔	↔
Asenapine	↔	↔	↔	↔	↔	↔	↔	↔
Chlorpromazine	↔	↔	↔	↔	↔	↔	↔	↔
Clozapine	↔	↔	↔	↔	↔	↔	↔	↔
Fluphenazine	↔	↔	↔	↔	↔	↔	↔	↔
Haloperidol	↔	↔	↔	↔	↔	↔	↔	↔
Iloperidone	↔	↔	↔	↔	↔	↔	↔	↔
Levomepromazine	↔	↔	↔	↔	↔	↔	↔	↔
Olanzapine	↔	↔	↔	↔	↔	↔	↔	↔
Paliperidone	↔	↔	↔	↔	↔	↔	↔	↔
Perazine	↔	↔	↔	↔	↔	↔	↔	↔
Periciazine	↔	↔	↔	↔	↔	↔	↔	↔
Perphenazine	↔	↔	↔	↔	↔	↔	↔	↔
Pimozide	↔	↔	↔	↔	↔	↔	↔	↔
Pipotiazine	↔	↔	↔	↔	↔	↔	↔	↔
Quetiapine	↔	↔	↔	↔	↔	↔	↔	↔
Risperidone	↔	↔	↔	↔	↔	↔	↔	↔
Sulpiride	↔	↔	↔	↔	↔	↔	↔	↔
Thioridazine	↔	↔	↔	↓	↓	↓	↔	↔
Tiapride	↔	↔	↔	↔	↔	↔	↔	↔
Ziprasidone	↔	↔	↔	↔	↔	↔	↔	↔
Zotepine	↔	↔	↔	↔	↔	↔	↔	↔
Zuclopenthixol	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Clozapine*

Caution is required due to potential additive haematological toxicity.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 12 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Anxiolytics/Hypnotics/Sedatives

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Alprazolam	↔	↔	↔	↔	↔	↔	↔	↔
Bromazepam	↔	↔	↔	↔	↔	↔	↔	↔
Buspirone	↔	↔	↔	↔	↔	↔	↔	↔
Chlordiazepoxide	↔	↔	↔	↔	↔	↔	↔	↔
Clobazam	↔	↔	↔	↔	↔	↔	↔	↔
Clorazepate	↔	↔	↔	↔	↔	↔	↔	↔
Diazepam	↔	↔	↔	↔	↔	↔	↔	↔
Estazolam	↔	↔	↔	↔	↔	↔	↔	↔
Flunitrazepam	↔	↔	↔	↔	↔	↔	↔	↔
Flurazepam	↔	↔	↔	↔	↔	↔	↔	↔
Hydroxyzine	↔	↔	↔	↔	↔	↔	↔	↔
Lorazepam	↔	↔	↔	↔	↔	↔	↔	↔
Lormetazepam	↔	↔	↔	↔	↔	↔	↔	↔
Midazolam (oral)	↔	↔	↔	↔	↔	↔	↔	↔
Midazolam (parenteral)	↔	↔	↔	↔	↔	↔	↔	↔
Oxazepam	↔	↔	↔	↔	↔	↔	↔	↔
Temazepam	↔	↔	↔	↔	↔	↔	↔	↔
Triazolam	↔	↔	↔	↓ 19%	↔	↔	↔	↔
Zaleplon	↔	↔	↔	↔	↔	↔	↔	↔
Zolpidem	↔	↔	↔	↔	↔	↔	↔	↔
Zopiclone	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 13 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Beta Blockers

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Atenolol	↔	↔	↔	↔	↔	↔	↔	↔
Bisoprolol	↔	↔	↔	↔	↔	↔	↔	↔
Carvedilol	↔	↔	↔	↔	↔	↔	↔	↔
Metoprolol	↔	↔	↔	↔	↔	↔	↔	↔
Nebivolol	↔	↔	↔	↔	↔	↔	↔	↔
Oxprenolol	↔	↔	↔	↔	↔	↔	↔	↔
Pindolol	↔	↔	↔	↔	↔	↔	↔	↔
Propranolol	↔	↔	↔	↔	↔	↔	↔	↔
Timolol	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 14 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Bronchodilators

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Acclidinium bromide	↔	↔	↔	↔	↔	↔	↔	↔
Aminophylline	↓	↔	↓	↔	↔	↔	↓	↓
Formoterol	↔	↔	↔	↔	↔	↔	↔	↔
Glycopyrronium bromide	↔	↔	↔	↔	↔	↔	↔	↔
Indacaterol	↔	↔	↔	↔	↔	↔	↔	↔
Ipratropium bromide	↔	↔	↔	↔	↔	↔	↔	↔
Montelukast	↔	↔	↔	↔	↔	↔	↔	↔
Olodaterol	↔	↔	↔	↔	↔	↔	↔	↔
Roflumilast	↔	↔	↔	↔	↔	↔	↔	↔
Salbutamol	↔	↔	↔	↔	↔	↔	↔	↔
Salmeterol	↔	↔	↔	↔	↔	↔	↔	↔
Theophylline	↓	↔	↓	↔	↔	↔	↓	↓
Tiotropium bromide	↔	↔	↔	↔	↔	↔	↔	↔
Umeclidinium bromide	↔	↔	↔	↔	↔	↔	↔	↔
Vilanterol	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Aminophylline + Anakinra, sarilumab or tocilizumab*

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

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 15 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Calcium Channel Blockers

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Amlodipine	↔	↔	↔	↔	↔	↔	↔	↔
Diltiazem	↔	↔	↔	↔	↔	↑	↔	↔
Felodipine	↔	↔	↔	↔	↔	↔	↔	↔
Nicardipine	↔	↔	↔	↔	↔	↑	↔	↔
Nifedipine	↔	↔	↔	↔	↔	↔	↔	↔
Nisoldipine	↔	↔	↔	↔	↔	↔	↔	↔
Nitrendipine	↔	↔	↔	↔	↔	↔	↔	↔
Verapamil	↔	↔	↔	↔	↔	↑	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 16 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Contraceptives/HRT - Contraceptives

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Desogestrel (COC)	↔	↔	↔	↔	↔	↔	↔	↔
Desogestrel (POP)	↔	↔	↔	↔	↔	↔	↔	↔
Drospirenone (COC)	↔	↔	↔	↔	↔	↔	↔	↔
Ethinylestradiol	↔	↑ <1%	↔	↔	↔	↔	↔	↔
Etonogestrel (implant)	↔	↔	↔	↔	↔	↔	↔	↔
Etonogestrel (vaginal ring)	↔	↔	↔	↔	↔	↔	↔	↔
Gestodene (COC)	↔	↔	↔	↔	↔	↔	↔	↔
Levonorgestrel (COC)	↔	↓ 12%	↔	↔	↔	↔	↔	↔
Levonorgestrel (emergency con.)	↔	↔	↔	↔	↔	↔	↔	↔
Levonorgestrel (implant)	↔	↔	↔	↔	↔	↔	↔	↔
Levonorgestrel (IUD)	↔	↔	↔	↔	↔	↔	↔	↔
Levonorgestrel (POP)	↔	↔	↔	↔	↔	↔	↔	↔
Medroxyprogesterone (depot inj)	↔	↔	↔	↔	↔	↔	↔	↔
Norelgestromin (patch)	↔	↔	↔	↔	↔	↔	↔	↔
Norethisterone (COC)	↔	↔	↔	↔	↔	↔	↔	↔
Norethisterone (IM depot)	↔	↔	↔	↔	↔	↔	↔	↔
Norethisterone (POP)	↔	↔	↔	↔	↔	↔	↔	↔
Norgestimate (COC)	↔	↔	↔	↔	↔	↔	↔	↔
Norgestrel (COC)	↔	↔	↔	↔	↔	↔	↔	↔
Ulipristal	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

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

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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



# Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 17 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Contraceptives/HRT - Hormone Replacement Therapy

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Drospirenone (HRT)	↔	↔	↔	↔	↔	↔	↔	↔
Dydrogesterone (HRT)	↔	↔	↔	↔	↔	↔	↔	↔
Estradiol	↔	↔	↔	↔	↔	↔	↔	↔
Levonorgestrel (HRT)	↔	↔	↔	↔	↔	↔	↔	↔
Medroxyprogesterone (oral)	↔	↔	↔	↔	↔	↔	↔	↔
Norethisterone (HRT)	↔	↔	↔	↔	↔	↔	↔	↔
Norgestrel (HRT)	↔	↔	↔	↔	↔	↔	↔	↔

### 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

### Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

### Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 18 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Covid-19 Antiviral Therapies

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Atazanavir	↔	↔	↔	↔	↔	↑	↔	↔
Azithromycin	↔	↔	↔	↔	↔	↔	↔	↔
Chloroquine	↔	↔	↔	↔	↔	↔	↔	↔
Favipiravir	↔	↑	↔	↔	↔	↔	↔	↔
Hydroxychloroquine	↔	↔	↔	↔	↔	↔	↔	↔
Interferon beta	↔	↔	↔	↔	↔	↔	↔	↔
Ivermectin	↔	↔	↔	↔	↔	↑	↔	↔
Lopinavir/ritonavir	↔	↔	↔	↔	↔	↑	↔	↔
Nitazoxanide	↔	↔	↔	↔	↔	↔	↔	↔
Remdesivir	↔	↔	↔	↔	↔	↔	↔	↔
Ribavirin	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Atazanavir or Lopinavir + Ruxolitinib*  
Ruxolitinib exposure may increase.

*Chloroquine or Hydroxychloroquine + Anakinra, baricitinib, canakinumab, ruxolitinib, sarilumab or tocilizumab*  
Use with caution due to potential additive toxicity.

*Chloroquine or Hydroxychloroquine + Dexamethasone or hydrocortisone*  
Caution is recommended as there is an increased risk of myopathies

*Interferon beta*  
Use with caution due to increased risk of haematological toxicity.

*Ivermectin + Ruxolitinib*  
Inhibition of P-gp by ruxolitinib may increase ivermectin transfer across the blood-brain barrier leading to higher concentrations in the brain and increased risk of neurotoxicity. Use with caution and monitor for neurotoxicity.

*Ribavirin + Anakinra, canakinumab, sarilumab or tocilizumab*  
The risk of haematological toxicity may be potentially increased as ribavirin and anakinra, canakinumab, sarilumab or tocilizumab can cause myelosuppression. Closely monitor haematological parameters.

*Ribavirin + Baricitinib or ruxolitinib*  
Use with caution due to potential additive haematological toxicity.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 19 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Covid-19 Immune Therapies

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Anakinra		↔	↔	↔	↔	↔	↔	↔
Baricitinib	↔		↔	↔	↔	↔	↔	↔
Canakinumab	↔	↔		↔	↔	↔	↔	↔
Dexamethasone	↔	↔	↔		↔	↔	↔	↔
Hydrocortisone (oral or IV)	↔	↔	↔	↔		↔	↔	↔
Ruxolitinib	↔	↔	↔	↔	↔		↔	↔
Sarilumab	↔	↔	↔	↔	↔	↔		↔
Tocilizumab	↔	↔	↔	↔	↔	↔	↔	

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

## Covid-19 Immune Therapies

Coadministration is not recommended due to the enhanced immunosuppressive effect.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 20 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Gastrointestinal Agents

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Alosetron	↔	↔	↔	↔	↔	↔	↔	↔
Antacids	↔	↔	↔	↓	↓	↔	↔	↔
Bisacodyl	↔	↔	↔	↔	↔	↔	↔	↔
Cimetidine	↔	↔	↔	↔	↔	↑	↔	↔
Cisapride	↔	↔	↔	↔	↔	↔	↔	↔
Esomeprazole	↔	↔	↔	↔	↔	↔	↔	↔
Famotidine	↔	↔	↔	↔	↔	↔	↔	↔
Lactulose	↔	↔	↔	↔	↔	↔	↔	↔
Lansoprazole	↔	↔	↔	↔	↔	↔	↔	↔
Loperamide	↔	↔	↔	↔	↔	↔	↔	↔
Mesalazine	↔	↔	↔	↔	↔	↔	↔	↔
Omeprazole	↔	↑ 7%	↔	↔	↔	↔	↔	↔
Pantoprazole	↔	↔	↔	↔	↔	↔	↔	↔
Prucalopride	↔	↔	↔	↔	↔	↔	↔	↔
Rabeprazole	↔	↔	↔	↔	↔	↔	↔	↔
Ranitidine	↔	↔	↔	↔	↔	↑	↔	↔
Senna	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

**Antacids + Dexamethasone or oral hydrocortisone**

Administration of dexamethasone and antacids should be separated by 2 hours.

**Bisacodyl, lactulose, prucalopride, senna + Dexamethasone or hydrocortisone**

Close monitoring is advised as dexamethasone, hydrocortisone 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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 21 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Gastrointestinal Agents – Anti-emetics

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Aprepitant	↔	↔	↔	↔	↔	↑	↔	↔
Cyclizine	↔	↔	↔	↔	↔	↔	↔	↔
Dolasetron	↔	↔	↔	↔	↔	↔	↔	↔
Domperidone	↔	↔	↔	↔	↔	↔	↔	↔
Dronabinol	↔	↔	↔	↔	↔	↔	↔	↔
Granisetron	↔	↔	↔	↔	↔	↔	↔	↔
Metoclopramide	↔	↔	↔	↔	↔	↔	↔	↔
Ondansetron	↔	↑♥	↔	↔	↔	↔	↔	↔
Prochlorperazine	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 22 of 31

Please check [www.covid19-druginteractions.org](http://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.

## HCV DDAs

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Elbasvir/Grazoprevir	↔	↔	↔	↔	↔	↑	↔	↔
Glecaprevir/Pibrentasvir	↔	↔	↔	↔	↔	↑	↔	↔
Ledipasvir/Sofosbuvir	↔	↔	↔	↔	↔	↑	↔	↔
Ombitasvir/Paritaprevir/r	↔	↔	↔	↔	↔	↑	↔	↔
Ombitasvir/Paritaprevir/r + Dasabuvir	↔	↔	↔	↔	↔	↑	↔	↔
Sofosbuvir	↔	↔	↔	↔	↔	↔	↔	↔
Sofosbuvir/Velpatasvir	↔	↔	↔	↔	↔	↔	↔	↔
Sofosbuvir/Velpatasvir/Voxilaprevir	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 23 of 31

Please check [www.covid19-druginteractions.org](http://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.

## HIV Antiretroviral Therapies

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Abacavir	↔	↔	↔	↔	↔	↔	↔	↔
Albuvirtide	↔	↔	↔	↔	↔	↔	↔	↔
Atazanavir + ritonavir	↔	↔	↔	↔	↔	↑	↔	↔
Atazanavir/cobicistat	↔	↔	↔	↔	↔	↑	↔	↔
Bictegravir/Emtricitabine/TAF	↔	↔	↔	↔	↔	↔	↔	↔
Darunavir + ritonavir	↔	↔	↔	↔	↔	↑	↔	↔
Darunavir/cobicistat	↔	↔	↔	↔	↔	↑	↔	↔
Darunavir/cobi/Emtricitabine/TAF	↔	↔	↔	↔	↔	↑	↔	↔
Dolutegravir	↔	↔	↔	↔	↔	↔	↔	↔
Dolutegravir/Lamivudine	↔	↔	↔	↔	↔	↔	↔	↔
Dolutegravir/Rilpivirine	↔	↔	↔	↓ (RPV)	↔	↔	↔	↔
Dolutegravir/Abacavir/Lamivudine	↔	↔	↔	↔	↔	↔	↔	↔
Doravirine	↔	↔	↔	↓	↔	↔	↔	↔
Doravirine/Lamivudine/TDF	↔	↔	↔	↓ (DOR)	↔	↔	↔	↔
Efavirenz	↔	↔	↔	↓	↓	↓	↔	↔
Elvitegravir/cobi/Emtricitabine/TAF	↔	↔	↔	↔	↔	↑	↔	↔
Elvitegravir/cobi/Emtricitabine/TDF	↔	↔	↔	↔	↔	↑	↔	↔
Emtricitabine	↔	↔	↔	↔	↔	↔	↔	↔
Emtricitabine/Tenofovir alafenamide	↔	↔	↔	↔	↔	↔	↔	↔
Emtricitabine/Tenofovir-DF	↔	↔	↔	↔	↔	↔	↔	↔
Etravirine	↔	↔	↔	↓	↓	↓	↔	↔
Ibalizumab-uyyk	↔	↔	↔	↔	↔	↔	↔	↔
Lamivudine	↔	↔	↔	↔	↔	↔	↔	↔
Maraviroc	↔	↔	↔	↓	↔	↔	↔	↔
Nevirapine	↔	↔	↔	↓	↓	↓	↔	↔
Raltegravir	↔	↔	↔	↔	↔	↔	↔	↔
Rilpivirine	↔	↔	↔	↓	↔	↔	↔	↔
Rilpivirine/Emtricitabine/TAF	↔	↔	↔	↓ (RPV)	↔	↔	↔	↔
Tenofovir-DF	↔	↔	↔	↔	↔	↔	↔	↔
Zidovudine	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

**Dexamethasone**

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

**Zidovudine**

Use with caution due to potential additive toxicity.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 24 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Hypertensives – ACE inhibitors

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Benazepril	↔	↔	↔	↔	↔	↔	↔	↔
Captopril	↔	↔	↔	↔	↔	↔	↔	↔
Cilazapril	↔	↔	↔	↔	↔	↔	↔	↔
Enalapril	↔	↔	↔	↔	↔	↔	↔	↔
Fosinopril	↔	↔	↔	↔	↔	↔	↔	↔
Lisinopril	↔	↔	↔	↔	↔	↔	↔	↔
Perindopril	↔	↔	↔	↔	↔	↔	↔	↔
Quinapril	↔	↔	↔	↔	↔	↔	↔	↔
Ramipril	↔	↔	↔	↔	↔	↔	↔	↔
Trandolapril	↔	↔	↔	↔	↔	↔	↔	↔

## Hypertensives – Angiotensin antagonists

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Candesartan	↔	↔	↔	↔	↔	↔	↔	↔
Eprosartan	↔	↔	↔	↔	↔	↔	↔	↔
Irbesartan	↔	↔	↔	↔	↔	↔	↔	↔
Losartan	↔	↔	↔	↔	↔	↔	↔	↔
Olmesartan	↔	↔	↔	↔	↔	↔	↔	↔
Telmisartan	↔	↔	↔	↔	↔	↔	↔	↔
Valsartan	↔	↔	↔	↔	↔	↔	↔	↔

## Hypertensives – Diuretics

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Amiloride	↔	↔	↔	↔	↔	↔	↔	↔
Bendroflumethiazide	↔	↔	↔	↔	↔	↔	↔	↔
Chlortalidone	↔	↔	↔	↔	↔	↔	↔	↔
Furosemide	↔	↔	↔	↔	↔	↔	↔	↔
Hydrochlorothiazide	↔	↔	↔	↔	↔	↔	↔	↔
Indapamide	↔	↔	↔	↔	↔	↔	↔	↔
Metolazone	↔	↔	↔	↔	↔	↔	↔	↔
Torasemide	↔	↔	↔	↔	↔	↔	↔	↔
Xipamide	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Bendroflumethiazide, chlortalidone, furosemide, hydrochlorothiazide, indapamide, metolazone, torasemide, xipamide*  
+ *Dexamethasone or hydrocortisone*

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

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

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



## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 25 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Hypertensives – Other agents

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Aliskiren	↔	↔	↔	↔	↔	↑	↔	↔
Clonidine	↔	↔	↔	↔	↔	↔	↔	↔
Digoxin	↔	↓ 10%	↔	↔	↔	↑	↔	↔
Dopamine	↔	↔	↔	↔	↔	↔	↔	↔
Doxazosin	↔	↔	↔	↔	↔	↔	↔	↔
Eplerenone	↔	↔	↔	↔	↔	↔	↔	↔
Hydralazine	↔	↔	↔	↔	↔	↔	↔	↔
Isosorbide dinitrate	↔	↔	↔	↔	↔	↔	↔	↔
Ivabradine	↔	↔	↔	↔	↔	↔	↔	↔
Labetalol	↔	↔	↔	↔	↔	↔	↔	↔
Lacidipine	↔	↔	↔	↔	↔	↔	↔	↔
Lercanidipine	↔	↔	↔	↔	↔	↔	↔	↔
Methyldopa	↔	↔	↔	↔	↔	↔	↔	↔
Moxonidine	↔	↔	↔	↔	↔	↔	↔	↔
Prazosin	↔	↔	↔	↔	↔	↔	↔	↔
Ranolazine	↔	↔	↔	↔	↔	↑	↔	↔
Sacubitril	↔	↔	↔	↔	↔	↔	↔	↔
Sodium nitroprusside	↔	↔	↔	↔	↔	↔	↔	↔
Spirolactone	↔	↔	↔	↔	↔	↔	↔	↔
Terazosin	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Digoxin + Dexamethasone or hydrocortisone*

Close monitoring is advised as dexamethasone or hydrocortisone may cause hypokalaemia which increases the risk of digoxin toxicity. In cases of hypokalaemia, potassium levels should be corrected and ECG monitored.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 26 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Hypertensives – Pulmonary hypertension

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Ambrisentan	↔	↔	↔	↔	↔	↑	↔	↔
Bosentan	↔	↔	↔	↓	↓	↓	↔	↔
Epoprostenol	↔	↔	↔	↔	↔	↔	↔	↔
Iloprost	↔	↔	↔	↔	↔	↔	↔	↔
Macitentan	↔	↔	↔	↔	↔	↔	↔	↔
Riociguat	↔	↔	↔	↔	↔	↑	↔	↔
Selexipag	↔	↔	↔	↔	↔	↔	↔	↔
Sildenafil	↔	↔	↔	↔	↔	↔	↔	↔
Tadalafil	↔	↔	↔	↔	↔	↔	↔	↔
Treprostinil	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 27 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Immunosuppressants

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Adalimumab	↔	↔	↔	↔	↔	↔	↔	↔
Anti-thymocyte globulin	↔	↔	↔	↔	↔	↔	↔	↔
Azathioprine	↔	↔	↔	↔	↔	↔	↔	↔
Basiliximab	↔	↔	↔	↔	↔	↔	↔	↔
Belatacept	↔	↔	↔	↔	↔	↔	↔	↔
Ciclosporin	↓	↑ 29%	↓	↓	↔	↑	↓	↓
Mycophenolate	↔	↔	↔	↔	↔	↔	↔	↔
Pirfenidone	↔	↔	↔	↔	↔	↔	↔	↔
Sirolimus	↓	↔	↓	↓	↔	↑	↓	↓
Tacrolimus	↓	↔	↓	↓	↔	↑	↓	↓

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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:

*Adalimumab and basiliximab*

Avoid coadministration due to the enhanced immunosuppressive effect.

*Azathioprine + anakinra, canakinumab, sarilumab or tocilizumab*

Caution is required due to potential additive haematological toxicity.

*Azathioprine, ciclosporin, tacrolimus + baricitinib*

The European product label for baricitinib advises caution as the risk of additive immunosuppression cannot be excluded.

The US product label for baricitinib states that baricitinib in combination with potent immunosuppressants is not recommended.

*Belatacept*

Caution is required due to potential additive haematological toxicity.

*Ciclosporin, sirolimus, tacrolimus + Dexamethasone*

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

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 28 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Inotropes &amp; Vasopressors

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Adrenaline (Epinephrine)	↔	↔	↔	↔	↔	↔	↔	↔
Dobutamine	↔	↔	↔	↔	↔	↔	↔	↔
Noradrenaline	↔	↔	↔	↔	↔	↔	↔	↔
Vasopressin	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 29 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Lipid Lowering Agents

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Atorvastatin	↔	↔	↔	↔	↔	↔	↔	↔
Bezafibrate	↔	↔	↔	↔	↔	↔	↔	↔
Clofibrate	↔	↔	↔	↔	↔	↔	↔	↔
Evolocumab	↔	↔	↔	↔	↔	↔	↔	↔
Ezetimibe	↔	↔	↔	↔	↔	↔	↔	↔
Fenofibrate	↔	↔	↔	↔	↔	↔	↔	↔
Fish oils	↔	↔	↔	↔	↔	↔	↔	↔
Fluvastatin	↔	↔	↔	↔	↔	↔	↔	↔
Gemfibrozil	↔	↔	↔	↔	↔	↔	↔	↔
Lovastatin	↔	↔	↔	↔	↔	↔	↔	↔
Pitavastatin	↔	↔	↔	↔	↔	↔	↔	↔
Pravastatin	↔	↔	↔	↔	↔	↔	↔	↔
Rosuvastatin	↔	↔	↔	↔	↔	↑	↔	↔
Simvastatin	↔	↓ 17%	↔	↔	↔	↔	↓ 54%	↓ 57%

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

# Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 30 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Others

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Allopurinol	↔	↔	↔	↔	↔	↔	↔	↔
Colchicine	↓	↔	↓	↔	↔	↔	↓	↓
Oseltamivir	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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

## Interactions with Experimental COVID-19 Immune Therapies

Charts updated 24 September 2020

Page 31 of 31

Please check [www.covid19-druginteractions.org](http://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.

## Steroids

	ANR	BAR	CAN	DEX	HC	RUX	SAR	TCZ
Beclometasone	↔	↔	↔	↔	↔	↔	↔	↔
Betamethasone	↔	↔	↔	↓	↓	↓	↔	↔
Budesonide	↔	↔	↔	↔	↔	↔	↔	↔
Ciclesonide	↔	↔	↔	↔	↔	↔	↔	↔
Clobetasol	↔	↔	↔	↔	↔	↔	↔	↔
Fludrocortisone	↔	↔	↔	↔	↔	↔	↔	↔
Flunisolide	↔	↔	↔	↔	↔	↔	↔	↔
Fluocinolone	↔	↔	↔	↔	↔	↔	↔	↔
Fluticasone	↔	↔	↔	↔	↔	↔	↔	↔
Hydrocortisone (topical)	↔	↔	↔	↔	↔	↔	↔	↔
Megestrol acetate	↔	↔	↔	↔	↔	↔	↔	↔
Methylprednisolone	↔	↔	↔	↔	↔	↔	↔	↔
Mometasone	↔	↔	↔	↔	↔	↔	↔	↔
Nandrolone	↔	↔	↔	↔	↔	↔	↔	↔
Oxandrolone	↔	↔	↔	↔	↔	↔	↔	↔
Prednisolone	↔	↔	↔	↔	↔	↔	↔	↔
Prednisone	↔	↔	↔	↔	↔	↔	↔	↔
Stanozolol	↔	↔	↔	↔	↔	↔	↔	↔
Testosterone	↔	↔	↔	↔	↔	↔	↔	↔
Triamcinolone	↔	↔	↔	↔	↔	↔	↔	↔

## 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 or decrease in AUC as observed in drug-drug interaction studies.

- ♥ This interaction involves drugs identified by [www.crediblemeds.org](http://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.

## Key to abbreviations

ANR	Anakinra	HC	Hydrocortisone
BAR	Baricitinib	RUX	Ruxolitinib
CAN	Canakinumab	SAR	Sarilumab
DXM	Dexamethasone	TCZ	Tocilizumab

## Colour Legend

	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