We aim to ensure that information is accurate and consistent. Ke
Please note that if a drug is not
this publication whether arising from negligence or otherwise howsoever or for any consequences arising from it. The University of Liverpool expressly exclude liability for errors, omissions or inaccuracies to the fullest extent permitted by law.

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Key to abbreviations

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

Drug interaction data for many agents are limited or absent; therefore, risk-benefit assessment for any individual patient rests with prescribers.

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# Anaesthetics & Muscle Relaxants

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**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 DDI) 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
- **BAR**: Baricitinib
- **BUD**: Budesonide
- **CAN**: Canakinumab
- **COL**: Colchicine
- **DXM**: Dexamethasone
- **HC**: Hydrocortisone
- **MP**: Methylprednisolone
- **RUX**: Ruxolitinib
- **SAR**: Sarilumab
- **TCZ**: Tocilizumab
- **VAC**: Covid-19 Vaccines

**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
- **Green**: No clinically significant interaction expected

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Note, please check product labels for any additional cardiac warnings.

### Notes:

Aspirin, celecoxib, diclofenac, ibuprofen, mefenamic acid, naproxen, nimesulide, piroxicam + Dexamethasone, hydrocortisone methylprednisolone

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

Metamizole + Anakirina, baricitinib, canakinumab, ruxolitinib, sarilumab, tocilizumab

Coadministration should be avoided due to the increased risk of haematological toxicity.

### Key to abbreviations

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### 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
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

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#### 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, hydrocortisone, methylprednisolone**

Close monitoring is advised as dexamethasone, hydrocortisone or methylprednisolone 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.

**Bepridil, disopyramide, dofetilide, flecaïnide, lidocaïne, mexiletine, propafenone, quinidine + 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.

**Digoxin + Colchicine**

Close monitoring is advised as the risk of myopathy and rhabdomyolysis may be increased by a combination of colchicine with digoxin, most commonly in patients with renal impairment.

**Digoxin + Dexamethasone, hydrocortisone, methylprednisolone**

Close monitoring is advised as dexamethasone, hydrocortisone or methylprednisolone 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
- BUD: Budesonide
- CAN: Canakinumab
- BAR: Baricitinib
- COL: Colchicine
- RUX: Ruxolitinib
- MP: Methylprednisolone
- TCZ: Tocilizumab
- HC: Hydrocortisone
- SAR: Sarilumab
- VAC: Covid-19 Vaccines

#### Colour Legend

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

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**Antibacterials**

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

**Clarithromycin or telithromycin + Budesonide**

Increased budesonide exposure is unlikely to be clinically relevant due to the short duration of inhaled budesonide used in COVID-19 treatment (2 weeks). However, prescribers should be aware of and to look out for signs of systemic corticosteroid side effects.

**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
- Amoxicillin
- Ampicillin
- Bedaquiline
- Capreomycin
- Cefalexin
- Cefazolin
- Cefepime
- Cefixime
- Cefotaxime
- Cefazidime
- Ceftriaxone
- Chloramphenicol
- Clavulanic acid
- Clindamycin
- Clofazimine
- Cloxacillin
- Cycloserine
- Dapsone
- Delamanid
- Doxycycline
- Ertapenem
- Ethambutol
- Ethaniamide
- Flucloxacinil
- Gentamicin
- Imipenem/Cilastatin
- Isoniazid
- Kanamycin
- Levofloxacin
- Meropenem
- Metronidazole
- Moxifloxacin
- Nitroturantoin
- Ofloxacin
- Para-aminosaliclyc acid
- Pencillins
- Piperacillin
- Pyrazinamide
- Rifaximin
- Spectinomycin
- Streptomycin
- Sulfadiazine
- Tazobactam
- Tetracyclines
- Tinidazole
- Trimethoprim/Sulfamethoxazole
- Vancomycin

**Key to abbreviations**

<table>
<thead>
<tr>
<th>ANR</th>
<th>BAR</th>
<th>BUD</th>
<th>CAN</th>
<th>COL</th>
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# Anti-coagulant, Anti-platelet and Fibrinolytic

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**Notes:**

### Anticoagulants + Covid-19 vaccines

As with other intramuscular injections, COVID-19 vaccines should be given with caution to individuals receiving anticoagulant therapy as bleeding or bruising may occur following an intramuscular injection in these individuals.

Acenocoumarol, phenprocoumon, warfarin + Anakinra, canakinumab, sarilumab or 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, 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.

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, such as oral corticosteroids.

---

**Key to abbreviations**

- ANR - Anakinra
- BAR - Baricitinib
- BUD - Budesonide
- CAN - Canakinumab
- COL - Colchicine
- DEX - Dexamethasone
- HC - Hydrocortisone
- MP - Methylprednisolone
- RUX - Ruxolitinib
- SAR - Sarilumab
- TCZ - Tocilizumab
- VAC - VACCINE

**Colour Legend**

- Red: These drugs should not be coadministered
- Yellow: Potential interaction which may require a dose adjustment or close monitoring
- Green: Potential interaction likely to be of weak intensity
- Grey: No clinically significant interaction expected

---

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**Anticonvulsants**

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**Text Legend**

↑: Potential increased exposure of the comedication
↓: Potential decreased exposure of the comedication
🏁: Potential increased exposure of COVID drug
عراض: 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 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**

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**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
Antidepressants

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**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

**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.

**Key to abbreviations**

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**Colour Legend**

- Red: These drugs should not be coadministered
- Green: Potential interaction which may require a dose adjustment or close monitoring
- Yellow: Potential interaction likely to be of weak intensity
- Light blue: No clinically significant interaction expected

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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

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**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.

**Antidiabetics + Methylprednisolone**

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

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**Key to abbreviations**

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**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
Antifungals

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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.

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.

Itraconazole, ketoconazole, posaconazole, voriconazole + Budesonide
Increased budesonide exposure is unlikely to be clinically relevant due to the short duration of inhaled budesonide used in COVID-19 treatment (2 weeks). However, prescribers should be aware of and to look out for signs of systemic corticosteroid side effects.

Key to abbreviations
ANR Anakinra | COL Colchicine | RUX Ruxolitinib
BAR Baricitinib | DXM Dexamethasone | SAR Sarilumab
BUD Budesonide | HC Hydrocortisone | TCZ Tocilizumab
CAN Canakinumab | MP Methylprednisolone | VAC Covid-19 Vaccines

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
Antipsychotics/Neuroleptics

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Text Legend

↑ Potential increased exposure of the medication
↓ Potential decreased exposure of the medication
↓↓ 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 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

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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

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

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### 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

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

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**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.credibleds.org](http://www.credibleds.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

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**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

**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**

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<td>VAC</td>
<td>Covid-19 Vaccines</td>
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**Colour Legend**

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

Please check [www.covid19-druginteractions.org](http://www.covid19-druginteractions.org) for updates.
Calcium Channel Blockers

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### Contraceptives/HRT - Contraceptives

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

### Contraceptives/HRT - Hormone Replacement Therapy

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**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 DDI) and/or additive if two or more such drugs are combined. Note, please check product labels for any additional cardiac warnings.

**Key to abbreviations**

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<tr>
<th>ANR</th>
<th>Anakinra</th>
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**Covid-19 Adjunct Therapies**

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**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

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**Notes:**

**Anticoagulant adjunct therapies + Covid-19 vaccines**

As with other intramuscular injections, COVID-19 vaccines should be given with caution to individuals receiving anticoagulant therapy as bleeding or bruising may occur following an intramuscular injection in these individuals.

**Aspirin (anti-platelet) + Dexamethasone, hydrocortisone, methylprednisolone**

Product labels for aspirin advise caution in patients receiving concomitant medications which could increase the risk of ulceration, such as oral corticosteroids.
Covid-19 Antiviral Therapies

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Note, please check product labels for any additional cardiac warnings.

Notes:

Atazanavir or Lopinavir + Ruxolitinib
Ruxolitinib exposure may increase.

Atazanavir or Lopinavir + Budesonide
Increased budesonide exposure is unlikely to be clinically relevant due to the short duration of inhaled budesonide used in COVID-19 treatment (2 weeks). However, prescribers should be aware of and to look out for signs of systemic corticosteroid side effects.

Chloroquine or Hydroxychloroquine + Anakinra, baricitinib, canakinumab, ruxolitinib, sarilumab or 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

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.

Bamlanivimab/Etesevimab and Casirivimab/Imdevimab + Covid-19 Vaccines
The American Centers for Disease Control and Prevention advises delaying COVID-19 vaccination until 90 days after administration of monoclonal antibodies as part of COVID-19 treatment, to avoid potential interference with the immune response to the COVID-19 vaccination. Check local guidelines for region-specific recommendations.

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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
Covid-19 Immune Therapies

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**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 of some immune therapies is not recommended due to the enhanced immunosuppressive effect.

**Convalescent Plasma + Covid-19 Vaccines**

The American Centers for Disease Control and Prevention advises delaying COVID-19 vaccination until 90 days after administration of convalescent plasma as part of COVID-19 treatment, to avoid potential interference with the immune response to the COVID-19 vaccination. Check local guidelines for region-specific recommendations.
Please check [www.covid19-druginteractions.org](http://www.covid19-druginteractions.org) for updates.

Drug interaction data for many agents are limited or absent; therefore, risk-benefit assessment for any individual patient rests with prescribers.

### Gastrointestinal Agents

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**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

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**Notes:**

**Antacids + oral dexamethasone, 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 points. Before the start of corticosteroid treatment, hypokalaemia should be corrected and patients should be monitored clinically, for electrolyte imbalance and by ECG.

**Magnesium salts + oral dexamethasone, hydrocortisone, methylprednisolone**

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

---

**Key to abbreviations**

<table>
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<tr>
<th>ANR</th>
<th>Anakinra</th>
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**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

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Gastrointestinal Agents – Anti-emetics

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Text Legend
- ↑ Potential increased exposure of the comedication
- ↓ Potential decreased exposure of the comedication
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- ♥ This interaction involves drugs identified by www.credibledrugs.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.
- ↔ No significant effect

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

Key to abbreviations
- ANR: Anakinra
- BAR: Baricitinib
- BUD: Budesonide
- CAN: Canakinumab
- COL: Colchicine
- DEX: Dexamethasone
- HC: Hydrocortisone
- MP: Methylprednisolone
- RUX: Ruxolitinib
- SAR: Sarilumab
- TCZ: Tocilizumab
- VAC: Covid-19 Vaccines

Colour Legend
- □ These drugs should not be coadministered
- □ Potential interaction which may require a dose adjustment or close monitoring
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Please check [www.covid19-druginteractions.org](http://www.covid19-druginteractions.org) for updates.

Drug interaction data for many agents are limited or absent; therefore, risk-benefit assessment for any individual patient rests with prescribers.

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**Notes:**

**Ombitasvir/Paritaprevir/r ± Dasabuvir + Budesonide**

Increased budesonide exposure is unlikely to be clinically relevant due to the short duration of inhaled budesonide used in COVID-19 treatment (2 weeks). However, prescribers should be aware of and to look out for signs of systemic corticosteroid side effects.

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**Key to abbreviations**

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**HIV Antiretroviral Therapies**

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**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 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.

**Ritonavir or cobicistat boosted ARVs + Budesonide**
Increased budesonide exposure is unlikely to be clinically relevant due to the short duration of inhaled budesonide used in COVID-19 treatment (2 weeks). However, prescribers should be aware of and to look out for signs of systemic corticosteroid side effects.

**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 that rilpivirine should be switched to an alternative if there is access to advice from an HIV team, otherwise rilpivirine should be doubled to 50 mg once daily and this dose maintained for approximately 2 weeks after the end of treatment.

**Zidovudine**
Use with caution due to potential additive toxicity.
**Hypertensives – ACE inhibitors**

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**Hypertensives – Angiotensin antagonists**

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**Hypertensives – Diuretics**

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**Text Legend**

- ↑ Potential increased exposure of the medication
- ↓ Potential decreased exposure of the medication
- † 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, chlorthalidone, furosemide, hydrochlorothiazide, indapamide, metolazone, torsemide, 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.

**Key to abbreviations**

<table>
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<tr>
<th>ANR</th>
<th>Ancanikumab</th>
<th>COL</th>
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<td>Methylprednisolone</td>
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</table>

**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
Hypertensives – Other agents

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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 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 | COL | Colchicine | RUX | Ruxolitinib |
BAR | Baricitinib | DXM | Dexamethasone | SAR | Sarilumab |
BUD | Budesonide | HC  | Hydrocortisone | TCZ | Tocilizumab |
CAN | Canakinumab | MP | Methylprednisolone | VAC | Covid-19 Vaccines |

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

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.
### Hypertensives – Pulmonary hypertension

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**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.  
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**Key to abbreviations**

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</table>

**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

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.

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**Interactions with Experimental COVID-19 Immune Therapies**

Charts updated 17 June 2021

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

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### Immunosuppressants

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**Text Legend**

↑ Potential increased exposure of the comedication
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Ț Potential increased exposure of COVID drug
Δ Potential decreased exposure of COVID drug
↔ No significant effect

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

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**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, everolimus, sirolimus, tacrolimus + Dexamethasone**

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

**Methotrexate + anakinra, baricitinib, canakinumab, ruxolitinib, sarilumab, tocilizumab**

Caution is required due to the risk of additive haematological toxicity. Additional monitoring should be considered.

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**Key to abbreviations**

<table>
<thead>
<tr>
<th>ANR</th>
<th>BAR</th>
<th>BUD</th>
<th>CAN</th>
<th>COL</th>
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**Interactions with Experimental COVID-19 Immune Therapies**

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

Drug interaction data for many agents are limited or absent; therefore, risk-benefit assessment for any individual patient rests with prescribers.

**Inotropes & Vasopressors**

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**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**

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Note, please check product labels for any additional cardiac warnings.

**Notes:**

**Fibrates or Statins + Colchicine**

Close monitoring is advised as there may be an increased risk of myopathy and rhabdomyolysis when colchicine is coadministered with fibrates or statins, most commonly in patients with renal impairment.

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**Key to abbreviations**

<table>
<thead>
<tr>
<th>ANR</th>
<th>Anakinra</th>
<th>COL</th>
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## Others

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### 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
- **BAR**: Baricitinib
- **BUD**: Budesonide
- **CAN**: Canakinumab
- **COL**: Colchicine
- **DXM**: Dexamethasone
- **HC**: Hydrocortisone
- **MP**: Methylprednisolone
- **RUX**: Ruxolitinib
- **SAR**: Sarilumab
- **TCZ**: Tocilizumab
- **VAC**: Covid-19 Vaccines

### 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**

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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 is limited or absent; therefore, risk-benefit assessment for any individual patient rests with prescribers.
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Steroids

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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

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