

Interactions with Outpatient Medicines & Nirmatrelvir/ritonavir (NMV/r)

Revised March 2025

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

Interaction tables - refer to pages 3 and 4 for legend, abbreviations and notes

Please note that if a drug is not listed it cannot automatically be assumed it is safe to coadminister.

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

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

Analgesics	
<input type="checkbox"/>	Aspirin
<input type="checkbox"/>	Buprenorphine
<input type="checkbox"/>	Celecoxib
<input type="checkbox"/>	Codeine
<input type="checkbox"/>	Dextropropoxyphene
<input type="checkbox"/>	Diclofenac
<input type="checkbox"/>	Fentanyl
<input type="checkbox"/>	Hydromorphone
<input type="checkbox"/>	Ibuprofen
<input type="checkbox"/>	Mefenamic acid
<input type="checkbox"/>	Methadone
<input type="checkbox"/>	Morphine
<input type="checkbox"/>	Naproxen
<input type="checkbox"/>	Oxycodone
<input type="checkbox"/>	Paracetamol
<input type="checkbox"/>	Pethidine
<input type="checkbox"/>	Tapentadol
<input type="checkbox"/>	Tramadol
Antiarrhythmics	
<input type="checkbox"/>	Amiodarone
<input type="checkbox"/>	Bepiridil
<input type="checkbox"/>	Digoxin
<input type="checkbox"/>	Disopyramide
<input type="checkbox"/>	Dofetilide
<input type="checkbox"/>	Dronedarone
<input type="checkbox"/>	Flecainide
<input type="checkbox"/>	Lidocaine
<input type="checkbox"/>	Propafenone
<input type="checkbox"/>	Quinidine
Anticoagulants/antiplatelets	
<input type="checkbox"/>	Apixaban
<input type="checkbox"/>	Aspirin (antiplatelet)
<input type="checkbox"/>	Clopidogrel (stented) (a)
<input type="checkbox"/>	Dabigatran (b)
<input type="checkbox"/>	Dalteparin
<input type="checkbox"/>	Dipyridamole
<input type="checkbox"/>	Edoxaban (c)
<input type="checkbox"/>	Enoxaparin
<input type="checkbox"/>	Heparin
<input type="checkbox"/>	Phenprocoumon (d)
<input type="checkbox"/>	Prasugrel
<input type="checkbox"/>	Rivaroxaban
<input type="checkbox"/>	Ticagrelor
<input type="checkbox"/>	Tinzaparin
<input type="checkbox"/>	Warfarin (d)

Anticonvulsants	
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<input type="checkbox"/>	Clonazepam
<input type="checkbox"/>	Eslicarbazepine
<input type="checkbox"/>	Ethosuximide
<input type="checkbox"/>	Gabapentin
<input type="checkbox"/>	Lacosamide
<input type="checkbox"/>	Lamotrigine
<input type="checkbox"/>	Levetiracetam
<input type="checkbox"/>	Oxcarbazepine
<input checked="" type="checkbox"/>	Phenobarbital
<input checked="" type="checkbox"/>	Phenytoin
<input type="checkbox"/>	Pregabalin
<input checked="" type="checkbox"/>	Primidone
<input type="checkbox"/>	Retigabine
<input type="checkbox"/>	Rufinamide
<input type="checkbox"/>	Sodium valproate
<input type="checkbox"/>	Tiagabine
<input type="checkbox"/>	Topiramate
<input type="checkbox"/>	Valproate semisodium (Divalproex sodium)
<input type="checkbox"/>	Valproic acid
<input type="checkbox"/>	Vigabatrin
<input type="checkbox"/>	Zonisamide
Antidepressants	
<input type="checkbox"/>	Agomelatine
<input type="checkbox"/>	Amitriptyline
<input type="checkbox"/>	Bupropion
<input type="checkbox"/>	Citalopram
<input type="checkbox"/>	Clomipramine
<input type="checkbox"/>	Desipramine
<input type="checkbox"/>	Doxepin
<input type="checkbox"/>	Duloxetine
<input type="checkbox"/>	Escitalopram
<input type="checkbox"/>	Fluoxetine
<input type="checkbox"/>	Imipramine
<input type="checkbox"/>	Lithium
<input type="checkbox"/>	Maprotiline
<input type="checkbox"/>	Mianserin
<input type="checkbox"/>	Mirtazapine
<input type="checkbox"/>	Nortriptyline
<input type="checkbox"/>	Paroxetine
<input type="checkbox"/>	Reboxetine
<input type="checkbox"/>	Sertraline
<input checked="" type="checkbox"/>	St John's Wort
<input type="checkbox"/>	Trazodone
<input type="checkbox"/>	Venlafaxine
<input type="checkbox"/>	Vortioxetine

Antidiabetics	
<input type="checkbox"/>	Acarbose
<input type="checkbox"/>	Canagliflozin
<input type="checkbox"/>	Dapagliflozin
<input type="checkbox"/>	Dulaglutide
<input type="checkbox"/>	Empagliflozin
<input type="checkbox"/>	Exenatide
<input type="checkbox"/>	Glibenclamide
<input type="checkbox"/>	Gliclazide
<input type="checkbox"/>	Glimepiride
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<input type="checkbox"/>	Insulin
<input type="checkbox"/>	Linagliptin
<input type="checkbox"/>	Liraglutide
<input type="checkbox"/>	Metformin
<input type="checkbox"/>	Pioglitazone
<input type="checkbox"/>	Rosiglitazone
<input type="checkbox"/>	Saxagliptin
<input type="checkbox"/>	Sitagliptin
<input type="checkbox"/>	Tolbutamide
<input type="checkbox"/>	Vildagliptin
Antihistamines	
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<input type="checkbox"/>	Fexofenadine
<input type="checkbox"/>	Loratadine
Antipsychotics	
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<input type="checkbox"/>	Asenapine
<input type="checkbox"/>	Chlorpromazine
<input type="checkbox"/>	Clozapine
<input type="checkbox"/>	Fluphenazine
<input type="checkbox"/>	Haloperidol
<input type="checkbox"/>	Iloperidone
<input type="checkbox"/>	Levomepromazine
<input type="checkbox"/>	Lumateperone
<input type="checkbox"/>	Lurasidone
<input type="checkbox"/>	Olanzapine
<input type="checkbox"/>	Paliperidone
<input type="checkbox"/>	Periciazine
<input type="checkbox"/>	Perphenazine
<input type="checkbox"/>	Pimozide
<input type="checkbox"/>	Pipotiazine
<input type="checkbox"/>	Quetiapine
<input type="checkbox"/>	Risperidone
<input type="checkbox"/>	Sulpiride
<input type="checkbox"/>	Tiapride
<input type="checkbox"/>	Ziprasidone

Anxiolytics	
<input type="checkbox"/>	Alprazolam
<input type="checkbox"/>	Bromazepam
<input type="checkbox"/>	Buspirone
<input type="checkbox"/>	Clobazam
<input type="checkbox"/>	Clorazepate
<input type="checkbox"/>	Diazepam
<input type="checkbox"/>	Estazolam
<input type="checkbox"/>	Flunitrazepam
<input type="checkbox"/>	Flurazepam
<input type="checkbox"/>	Lorazepam
<input type="checkbox"/>	Lormetazepam
<input type="checkbox"/>	Midazolam
<input type="checkbox"/>	Oxazepam
<input type="checkbox"/>	Temazepam
<input type="checkbox"/>	Triazolam
<input type="checkbox"/>	Zaleplon
<input type="checkbox"/>	Zolpidem
<input type="checkbox"/>	Zopiclone
Beta blockers	
<input type="checkbox"/>	Atenolol
<input type="checkbox"/>	Bisoprolol
<input type="checkbox"/>	Carvedilol
<input type="checkbox"/>	Metoprolol
<input type="checkbox"/>	Nebivolol
<input type="checkbox"/>	Propranolol
<input type="checkbox"/>	Sotalol
<input type="checkbox"/>	Timolol
Bronchodilators	
<input type="checkbox"/>	Acidinium bromide
<input type="checkbox"/>	Aminophylline
<input type="checkbox"/>	Formoterol
<input type="checkbox"/>	Glycopyrronium bromide
<input type="checkbox"/>	Indacaterol
<input type="checkbox"/>	Ipratropium bromide
<input type="checkbox"/>	Montelukast
<input type="checkbox"/>	Olodaterol
<input type="checkbox"/>	Roflumilast
<input type="checkbox"/>	Salbutamol
<input type="checkbox"/>	Salmeterol
<input type="checkbox"/>	Theophylline
<input type="checkbox"/>	Tiotropium bromide
<input type="checkbox"/>	Umeclidinium bromide
<input type="checkbox"/>	Vilanterol

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Calcium channel blockers	
<input type="checkbox"/>	Amlodipine
<input type="checkbox"/>	Diltiazem
<input type="checkbox"/>	Felodipine
<input type="checkbox"/>	Nicardipine
<input type="checkbox"/>	Nifedipine
<input type="checkbox"/>	Nitrendipine
<input type="checkbox"/>	Verapamil
Cancer drugs	
<input type="checkbox"/>	Abemaciclib (e)
<input type="checkbox"/>	Abiraterone
<input type="checkbox"/>	Acalabrutinib
<input type="checkbox"/>	Afatinib
<input type="checkbox"/>	Alectinib
<input checked="" type="checkbox"/>	Apalutamide
<input type="checkbox"/>	Atezolizumab
<input type="checkbox"/>	Bosutinib
<input type="checkbox"/>	Capecitabine
<input type="checkbox"/>	Ceritinib (e)
<input type="checkbox"/>	Dasatinib (f)
<input type="checkbox"/>	Encorafenib (e)
<input checked="" type="checkbox"/>	Enzalutamide
<input type="checkbox"/>	Erlotinib (e)
<input type="checkbox"/>	Fostamatinib
<input type="checkbox"/>	Gilteritinib (e)
<input type="checkbox"/>	Ibrutinib (g)
<input type="checkbox"/>	Imatinib
<input checked="" type="checkbox"/>	Ivosidenib
<input type="checkbox"/>	Lenalidomide
<input type="checkbox"/>	Midostaurin (h)
<input type="checkbox"/>	Neratinib
<input type="checkbox"/>	Nilotinib (f)
<input type="checkbox"/>	Olaparib (e)
<input type="checkbox"/>	Osimertinib
<input type="checkbox"/>	Palbociclib (e)
<input type="checkbox"/>	Pazopanib (e)
<input type="checkbox"/>	Pomalidomide
<input type="checkbox"/>	Ribociclib (e)
<input type="checkbox"/>	Sotorasib
<input type="checkbox"/>	Sunitinib (e)
<input type="checkbox"/>	Tamoxifen
<input type="checkbox"/>	Venetoclax (i)
<input type="checkbox"/>	Vinblastine (e)
<input type="checkbox"/>	Vincristine (e)
Contraceptives	
<input type="checkbox"/>	Desogestrel (COC)
<input type="checkbox"/>	Desogestrel (POP)
<input type="checkbox"/>	Ethinylestradiol
<input type="checkbox"/>	Etonogestrel (IMP)
<input type="checkbox"/>	Etonogestrel (VR)
<input type="checkbox"/>	Levonorgestrel (COC)
<input type="checkbox"/>	Levonorgestrel (IUD)
<input type="checkbox"/>	Levonorgestrel (POP)
<input type="checkbox"/>	Medroxyprogesterone (depot injection)
<input type="checkbox"/>	Norethisterone (COC)
<input type="checkbox"/>	Norethisterone (IM)
<input type="checkbox"/>	Norethisterone (POP)
<input type="checkbox"/>	Norgestrel (COC)

Cystic fibrosis agents	
<input type="checkbox"/>	Ivacaftor
<input checked="" type="checkbox"/>	Ivacaftor/lumacaftor
<input type="checkbox"/>	Ivacaftor/tezacaftor
<input type="checkbox"/>	Ivacaftor/tezacaftor/elixacaftor
Gastrointestinal agents	
<input type="checkbox"/>	Antacids
<input type="checkbox"/>	Cisapride
<input type="checkbox"/>	Aprepitant
<input type="checkbox"/>	Domperidone
<input type="checkbox"/>	Esomeprazole
<input type="checkbox"/>	Famotidine
<input type="checkbox"/>	Lansoprazole
<input type="checkbox"/>	Loperamide
<input type="checkbox"/>	Mesalazine
<input type="checkbox"/>	Metoclopramide
<input type="checkbox"/>	Omeprazole
<input type="checkbox"/>	Ondansetron
<input type="checkbox"/>	Pantoprazole
<input type="checkbox"/>	Rabeprazole
<input type="checkbox"/>	Ranitidine
<input type="checkbox"/>	Senna
HCV antivirals	
<input type="checkbox"/>	Elbasvir/grazoprevir
<input type="checkbox"/>	Glecaprevir/pibrentasvir
<input type="checkbox"/>	Ledipasvir/sofosbuvir
<input type="checkbox"/>	Sofosbuvir/velpatasvir
<input type="checkbox"/>	Sofosbuvir/velpatasvir/voxilaprevir
HIV antiretrovirals	
<input type="checkbox"/>	Abacavir
<input type="checkbox"/>	Atazanavir/ritonavir
<input type="checkbox"/>	Bictegravir
<input type="checkbox"/>	Cabotegravir
<input type="checkbox"/>	Cabotegravir/rilpivirine (long acting)
<input type="checkbox"/>	Darunavir/ritonavir
<input type="checkbox"/>	Dolutegravir
<input type="checkbox"/>	Doravirine
<input type="checkbox"/>	Efavirenz
<input type="checkbox"/>	Emtricitabine
<input type="checkbox"/>	Etravirine
<input type="checkbox"/>	Fostemsavir
<input type="checkbox"/>	Lamivudine
<input type="checkbox"/>	Nevirapine
<input type="checkbox"/>	Raltegravir
<input type="checkbox"/>	Rilpivirine
<input type="checkbox"/>	Tenofovir alafenamide
<input type="checkbox"/>	Tenofovir-DP

Hypertension/heart failure	
<input type="checkbox"/>	Aliskiren
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<input type="checkbox"/>	Bosentan
<input type="checkbox"/>	Candesartan
<input type="checkbox"/>	Captopril
<input type="checkbox"/>	Cilazapril
<input type="checkbox"/>	Doxazosin
<input type="checkbox"/>	Enalapril
<input type="checkbox"/>	Eplerenone
<input type="checkbox"/>	Eprosartan
<input type="checkbox"/>	Fosinopril
<input type="checkbox"/>	Furosemide
<input type="checkbox"/>	Hydralazine
<input type="checkbox"/>	Hydrochlorothiazide
<input type="checkbox"/>	Iloprost
<input type="checkbox"/>	Indapamide
<input type="checkbox"/>	Irbesartan
<input type="checkbox"/>	Ivabradine
<input type="checkbox"/>	Labelalol
<input type="checkbox"/>	Lacidipine
<input type="checkbox"/>	Lercanidipine
<input type="checkbox"/>	Lisinopril
<input type="checkbox"/>	Losartan
<input type="checkbox"/>	Olmesartan
<input type="checkbox"/>	Perindopril
<input type="checkbox"/>	Prazosin
<input type="checkbox"/>	Quinapril
<input type="checkbox"/>	Ramipril
<input type="checkbox"/>	Ranolazine
<input type="checkbox"/>	Riociguat (j)
<input type="checkbox"/>	Sacubitril
<input type="checkbox"/>	Sildenafil
<input type="checkbox"/>	Spironolactone
<input type="checkbox"/>	Tadalafil
<input type="checkbox"/>	Telmisartan
<input type="checkbox"/>	Terazosin
<input type="checkbox"/>	Torasemide
<input type="checkbox"/>	Trandolapril
<input type="checkbox"/>	Valsartan
Immunosuppressants	
<input type="checkbox"/>	Adalimumab
<input type="checkbox"/>	Azathioprine
<input type="checkbox"/>	Basiliximab
<input type="checkbox"/>	Belatacept
<input type="checkbox"/>	Ciclosporin (k)
<input type="checkbox"/>	Etanercept
<input type="checkbox"/>	Everolimus (l)
<input type="checkbox"/>	Leflunomide
<input type="checkbox"/>	Methotrexate
<input type="checkbox"/>	Mycophenolate
<input type="checkbox"/>	Sirolimus (m)
<input type="checkbox"/>	Tacrolimus (n)
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Lipid lowering agents	
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<input type="checkbox"/>	Ezetimibe
<input type="checkbox"/>	Fenofibrate
<input type="checkbox"/>	Fluvastatin
<input type="checkbox"/>	Gemfibrozil
<input type="checkbox"/>	Lovastatin
<input type="checkbox"/>	Pitavastatin
<input type="checkbox"/>	Pravastatin
<input type="checkbox"/>	Rosuvastatin
<input type="checkbox"/>	Simvastatin

Multiple sclerosis agents	
<input type="checkbox"/>	Alemtuzumab
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<input type="checkbox"/>	Dantrolene sodium
<input type="checkbox"/>	Dimethyl fumarate
<input type="checkbox"/>	Fampridine
<input type="checkbox"/>	Fingolimod
<input type="checkbox"/>	Glatiramer acetate
<input type="checkbox"/>	Natalizumab
<input type="checkbox"/>	Ocrelizumab
<input type="checkbox"/>	Ozanimod
<input type="checkbox"/>	Peginterferon beta-1a
<input type="checkbox"/>	Siponimod
<input type="checkbox"/>	Teriflunomide
Others	
<input type="checkbox"/>	Alendronic acid
<input type="checkbox"/>	Alfuzosin
<input type="checkbox"/>	Allopurinol
<input type="checkbox"/>	Calcium supplement
<input type="checkbox"/>	Colchicine
<input type="checkbox"/>	Donepezil
<input type="checkbox"/>	Ergometrine (ergonovine)
<input type="checkbox"/>	Ergotamine
<input type="checkbox"/>	Finasteride
<input type="checkbox"/>	Hydroxychloroquine
<input type="checkbox"/>	Infliximab
<input type="checkbox"/>	Levodopa
<input type="checkbox"/>	Levothyroxine
<input type="checkbox"/>	Memantine
<input type="checkbox"/>	Methotrexate
<input type="checkbox"/>	Mirabegron (o)
<input type="checkbox"/>	Modafinil
<input type="checkbox"/>	Pramipexole
<input type="checkbox"/>	Pyridostigmine
<input type="checkbox"/>	Rifabutin (p)
<input checked="" type="checkbox"/>	Rifampicin
<input checked="" type="checkbox"/>	Rifapentine
<input type="checkbox"/>	Tamsulosin (q)
Steroids	
<input type="checkbox"/>	Beclomethasone
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<input type="checkbox"/>	Clobetasol
<input type="checkbox"/>	Fludrocortisone
<input type="checkbox"/>	Flunisolide
<input type="checkbox"/>	Fluticasone
<input type="checkbox"/>	Hydrocortisone
<input type="checkbox"/>	Methylprednisolone
<input type="checkbox"/>	Mometasone
<input type="checkbox"/>	Prednisolone
<input type="checkbox"/>	Prednisone
<input type="checkbox"/>	Triamcinolone

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Legend

Colour/Symbol	Recommendation for NMV/r use
! Do not co-administer	Do not use NMV/r ⇒ alternative COVID-19 therapy Risk of serious toxicity. Stopping the drug does not mitigate the interaction due to its prolonged half-life.
× Do not co-administer	Do not use NMV/r ⇒ alternative COVID-19 therapy Strong inducer can jeopardize NMV/r efficacy due to persisting induction after stopping the drug.
Do not co-administer	NMV/r use ONLY possible if drug is paused or replaced by a non-interacting drug Risk of serious toxicity. Only start NMV/r if the drug can be safely paused or replaced. Drug can be resumed at least 3 days (if possible, up to 5 days for narrow therapeutic index drugs) after completing NMV/r therapy.
□ Potential interaction Dose adjustment and/or close monitoring required.	Stop or replace drug if possible or consult specialist for dose adjustment/monitoring to allow use with NMV/r Ideally, only start NMV/r if the drug can be safely paused or replaced. Alternatively, dose adjust/monitor. Refer to www.covid19-druginteractions.org for detailed information.
Potential interaction Manageable by counselling patient	Proceed with NMV/r Interaction manageable by counselling the patient about potential interaction and advising to temporarily stop the drug if feeling unwell.
Weak interaction No action needed	Proceed with NMV/r Drug metabolized partially by CYP3A4 or with low risk of adverse event from interaction.
No interaction expected	Proceed with NMV/r

Contraceptive Abbreviations

COC = combined oral contraceptive

EC = emergency contraception

IUD = intrauterine device

IM = intramuscular

IMP = implant

POP = progestin only contraceptive pill

VR = vaginal ring

Notes

- Ritonavir reduces the conversion to clopidogrel's active metabolite leading to insufficient inhibition of platelet aggregation. Thus, it is recommended to avoid NMV/r in patients at very high-risk of thrombosis (e.g. early period post coronary stenting) unless clopidogrel can be switched to the non-interacting drug prasugrel. However, NMV/r treatment is possible in other clinical situations for which a transient loss in clopidogrel efficacy is acceptable (e.g. alternative to aspirin in intolerant patients).
- When used for the treatment of atrial fibrillation, reduce dabigatran to 110 mg twice daily in individuals with normal renal function and to 75 mg twice daily in individuals with moderate renal impairment. Consult www.covid19-druginteractions.org for management in other indications.
- When used for the treatment of atrial fibrillation, reduce edoxaban to 30 mg. Consult www.covid19-druginteractions.org for management in other indications.
- Monitor INR as clinically indicated.
- Decision to hold or dose adjust the cancer drug should be made in conjunction with the patient's oncologist. Consult www.covid19-druginteractions.org for details related to dosage adjustment.
- Accelerated or blast phase chronic myelogenous leukaemia: do not co-administer, use alternative COVID-19 therapy. In the indication of chronic phase chronic myelogenous leukaemia, the decision to hold or dose adjust the cancer drug should be made in conjunction with the patient's oncologist. If it is decided to hold treatment, restart the cancer drug at least 3 days after completing NMV/r. Alternatively dose adjust, consult www.covid19-druginteractions.org for details.
- The decision to hold ibrutinib treatment should be made in conjunction with the patient's oncologist. It may be dangerous to interrupt therapy in patients with high volume chronic lymphocytic leukaemia or mantle cell lymphoma due to disease flare and/or cytokine release. Consider an alternative COVID-19 therapy.
- Strong CYP3A4 inhibitors can substantially increase midostaurin exposure. Consider an alternative COVID-19 treatment.
- Coadministration with NMV/r is contraindicated at initiation and during the dose-titration phase to minimize the risk of tumour lysis syndrome. Use an alternative COVID19 therapy.
- The European product label for riociguat does not recommend its use in presence of strong inhibitors; the US product label recommends to start riociguat at a dose of 0.5 mg three times daily and to monitor for signs and symptoms of hypotension.
- The management of this interaction is challenging and would require dosage adjustment and TDM of ciclosporin which may not be possible given the short duration of NMV/r treatment. An alternative COVID treatment should be considered. However, if TDM is available, an empiric dose reduction of ciclosporin has been suggested (reduce total daily dose by 80% and administer once daily) and start NMV/r 12 hours after the last dose of ciclosporin. Continue at reduced dose during treatment with NMV/r (days 1-5). Ciclosporin concentrations should be assessed on day 6 or 7 and repeated every 2-4 days. If concentrations are supratherapeutic, reduce the current ciclosporin dose. If concentrations are therapeutic, continue the current ciclosporin dose. If concentrations are subtherapeutic, increase the ciclosporin daily dose and consider resumption of twice daily dosing. In all cases, repeat ciclosporin concentration monitoring after 2-4 days and continue to dose adjust accordingly.
- A large increase in everolimus exposure is predicted in presence of NMV/r. Avoid use of NMV/r unless close monitoring of everolimus concentrations is feasible. If coadministered, hold everolimus and start NMV/r 12 hours after the last everolimus dose. Check everolimus concentrations 1-2 days after the last dose of NMV/r. If concentrations are supratherapeutic, continue to hold everolimus and repeat concentration monitoring in 2-4 days to assess resumption. If concentrations are therapeutic/subtherapeutic, resume everolimus at 25-50% of baseline dose. Repeat concentration monitoring every 2-4 days and dose-adjust accordingly.

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- m) A large increase in sirolimus exposure is predicted in presence of NMV/r. Avoid use of NMV/r unless close monitoring of sirolimus concentrations is feasible. If coadministered, hold sirolimus and start NMV/r 24-48 hours after the last sirolimus dose. Check, sirolimus concentrations 1-2 days after the last dose of NMV/r. If concentrations are supratherapeutic, continue to hold sirolimus and repeat concentration monitoring in 5-7 days to assess resumption. If concentrations are therapeutic/subtherapeutic, resume sirolimus at 50% of baseline dose. Repeat concentration monitoring every 7 days and dose-adjust accordingly.
- n) The management of this interaction is challenging and would require a substantial reduction in tacrolimus dosage. Given the complex management of this interaction, consider an alternative COVID treatment. However, if frequent TDM for tacrolimus is available, hold tacrolimus and start NMV/r 12 hours (immediate tacrolimus release) or 24 hours (extended tacrolimus release) after the last tacrolimus dose. Tacrolimus concentrations should be assessed on day 6 or 7 (and every 2-4 days thereafter) and resumption of tacrolimus should begin once drug concentrations approach the therapeutic target. If concentrations are supratherapeutic, continue to withhold tacrolimus. If concentrations are therapeutic, restart tacrolimus at 25-50% of baseline dose. If concentrations are subtherapeutic, restart tacrolimus at 25-75% of baseline dose. Frequent re-assessment should continue for at least two weeks given the variable time course of CYP3A enzyme recovery.
- o) No dose reduction or monitoring in patients with normal renal function.
- p) Rifabutin is dosed at 150 mg once daily with NMV/r.
- q) Pause tamsulosin and restart 3 days after completing NMV/r. Alternatively, consider using tamsulosin 0.4 mg/day or every other day with monitoring for hypotension. The dose of tamsulosin should not exceed 0.4 mg/day if coadministered.