



**World Health  
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# **WHO R&D Blueprint COVID 19 Experimental Treatments**

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**R&D Blueprint**

Powering research  
to prevent epidemics



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## COVID 19 - EXPERIMENTAL TREATMENTS

### Classification of treatment types

	Treatment type	Treatment name
Drugs	Antiviral, non-specific	Interferons Interferon lambda alpha 1a Immunoglobulin Interleukin-2
	Antiviral, broad spectrum	Favipiravir Ribavirin Triazavirin Umifenovir Sofosbuvir+Daclatasvir Sofosbuvir+Ledipasvir Umifenovir+ribavirin Xiyanning Nitazoxanide Galidesivir
	Antiviral, antiretrovirals	ASC09 Azvudine Danoprevir Darunavir Darunavir+cobicistat Lopinavir+ritonavir Remdesivir Danoprevir+ritonavir ASC09+ritonavir Clevudine



	Treatment type	Treatment name
	Other antiviral	Baloxavir marboxil Oseltamivir BLD-2660
	Antiviral combination (when combining antivirals from different groups)	interferon alpha+lopinavir umifenovir+interferon alpha Lopinavir+ritonavir+Ribavirin+interferon beta1 ASC09F+oseltamivir Ritonavir+oseltamivir lopinavir+ritonavir+xiyanping Lopinavir+ritonavir+interferon beta1
	Antimalaria	Chloroquine Hydroxychloroquine Dihydroartemisinin Mefloquine GNS561 (chloroquine analog)
	Antimalaria+antibiotics	Hydroxychloroquine+azithromycin
	Antibiotics+antimalaria+mono clonal antibodies	Azithromycin+hydroxychloroquine+tocilizumab
	Antibiotics	Carrimycin Ceftriaxone Levofloxacin OR Moxifloxacin Piperacillin+Tazobactam Ceftaroline fosamil Amoxicillin+potassium clavulanate Standard course macrolide Teicoplanin Azithromycin



	Treatment type	Treatment name
	Antiparasitics	Suramin sodium levamisole pill Senicapoc Niclosamide Nitazoxanide Ivermectin
	Antimalaria+antiparasitics	Hydroxychloroquine+ivermectin
	Antifungal	Itraconazole
	Non-specific anti-inflammatory	Methylprednisolone Ciclesonide Dexamethasone budesonide+formoterol Hydrocortisone Other corticosteroids Prednisone
	Anti-inflammatory	Colchicine Piclidenoson
	Immunosuppressant	Fingolimod Leflunomide Thalidomide
	Immunosuppressant+antiviral	Thalidomide+umifenovir
	Kinase inhibitor	Jakotinib hydrochloride Ruxolitinib Nintedanib esilate Imatinib mesylate Acalabrutinib



	Treatment type	Treatment name
	Non-specific anti-inflammatory+immunosuppressant	Methylprednisolone+tacrolimus
	Protease inhibitor	Camostat Mesilate
	Monoclonal antibodies	Adalimumab Bevacizumab Camrelizumab Eculizumab Mepolizumab PD-1 mAb Sarilumab Tocilizumab Adamumab + tozumab Ixezumab nivolumab IFX-1 Leronlimab (PRO 140) Clazakizumab
	Antiviral+ Monoclonal antibodies	Favipiravir+tocilizumab
	Antiviral+antimalaria	darunavir+cobicistat+hydroxychloroquine favipiravir+chloroquine phosphate
	Immunomodulator	CD24 Anakinra
	ACE inhibitor	Losartan Recombinant human angiotensin-converting enzyme 2 (rhACE2) Telmisartan



	Treatment type	Treatment name
		Valsartan Renin-Angiotensin-System-Blockade Captopril
	Antiarrhythmic	Amiodarone
	Calcium channel blocker	Verapamil
	Vasodilator	angiotensin 1-7
	Cardio protective	aspirin + clopidogrel + rivaroxaban + atorvastatin + omeprazole
	Anticoagulant	Enoxaparin sodium Rivaroxaban Tinzaparin
	Antiviral+antihistamine	Ebastine+interferon alpha
	NSAID	Ibuprofen Naproxen
	Mucolytic	Acetylcysteine Bromhexine hydrochloride
	Antidepressant	Fluvoxamine
	Other	Aviptadil (vasoactive intestinal peptide) Bismuth potassium citrate (may inhibit SARS-CoV1 helicase) Dipyridamole (antiplatelet) Pirfenidone (treat idiopathic pulmonary fibrosis) Polyinosinic-polycytidylic acid rhG-CSF Thymosin Tranilast



	Treatment type	Treatment name
		Ulinastatin (sepsis management) Vitamin C Sodium Aescinate (vasoactive, organ protective) Tetrandrine (calcium channel blocker, anti-inflammatory) Lipoic acid injection (antioxidant) PUL-042 Inhalation Solution Noscapine (narcotine derivative) T89 (improving oxygen saturation) Naproxen+lansoprazole Neurokinin-1 antagonist Deferoxamine Rabeprazole (proton pump inhibitor) Compound amino acid Tranexamic acid Nitric Oxide Releasing Solution Zinc chloride Selinexor T3 solution for injection Curcumin C3 Berberine Pyridostigmine Dalargin Febuxostat Vazegepant Dapagliflozin
	Vaccine	BCG vaccine Recombinant Novel Coronavirus (2019-nCoV) Vaccine (Adenovirus Vector)





	Treatment type	Treatment name
		bacTRL-Spike vaccine ChAdOx1 nCoV-19 vaccine CIGB 2020 vaccine
Non-drug	Advanced Therapy Medicinal Products (ATMP)	Aerosol inhalation of vMIP: viral macrophage inflammatory protein Ankylosaurus; M1 macrophages target Anti-2019-nCoV inactivated convalescent plasma Anti-SARS-CoV-2 inactivated convalescent plasma Biological preparation of human placenta Convalescent plasma treatment Cord blood mesenchymal stem cells Human menstrual blood-derived stem cells Immunoglobulin from cured patients Inactivated Mycobacterium vaccine Infusion of convalescent plasma Mesenchymal stem cells Mesenchymal stem cells exosomes atomization mRNA-1273 NK cells Plasma treatment Recombinant cytokine gene-derived protein injection Regulating intestinal flora Therapeutic antibody from recovered novel coronavirus pneumonia patients Umbilical cord blood mononuclear cells Umbilical cord mesenchymal stem cells (hucMSCs)



	Treatment type	Treatment name
		<p>Umbilical cord Wharton's Jelly derived mesenchymal stem cells</p> <p>Umbilical Cord(UC)-derived mesenchymal stem cells</p> <p>human dental pulp stem cells</p> <p>Sargramostim (rhu GM-CSF)</p> <p>Recombinant super-compound interferon (rSIFN-co)</p> <p>Convalescent anti-SARS-CoV-2 plasma</p> <p>Mycobacterium</p> <p>Hope Biosciences Allogeneic Mesenchymal Stem Cell Therapy (HB-adMSCs)</p> <p>Bone marrow-derived mesenchymal stem cell</p>
	Metabolomic group rearrangement	Compound amino acid
	Protective device	<p>Wear a self-made "gastroscope mask" during gastroscopy</p> <p>Medical mask</p> <p>N95 respirator</p>
	Infection prevention	<p>Propofol anesthesia maintenance, common extubation</p> <p>Propofol anesthesia was maintained, and the extubation strategy of "circulatory induced respiration" was adopted after the operation</p> <p>Sevoflurane anesthesia was maintained, and the extubation strategy of "circulatory induced respiration" was adopted after the operation</p>
	Rehabilitation	<p>Shadowboxing</p> <p>pulmonary rehabilitation</p>



	Treatment type	Treatment name
		Lung rehabilitation training Exercise rehabilitation under remote monitoring Patient education
	Gas inhalation	Nitric oxide gas Oxygen concentrator Hydrogen-Oxygen Nebulizer Hydrogen inhalation Continuous positive airway pressure Hyperbaric oxygen
	Respiratory support	high-flow therapy by nasal cannulae (HFNC) bag- valve mask oxygenation (SMO) High flow nasal oxygen Postural positioning
	Life support	Renal replacement therapy Artificial liver therapy ozonated autohemotherapy ECMO implantation CytoSorb-Therapy HA330
	Microbiota intervention	Probiotics Newgen beta-gluten probiotic composite powder Washed microbiota transplantation Regulating intestinal flora
	Medical device	ultra short wave electrotherapy Inspiratory training Expiratory training device



	Treatment type	Treatment name
	Mouthwash	Povidone-Iodine Hydrogen peroxide Neem extract (Azadirachta indica)
	Education	Training for wearing mask

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For additional information please consult the COVID-NMA project site.

## Living map of ongoing research

To provide a living map of ongoing research, the research team searches clinical trial registries and records data to compile registered study characteristics. This feeds into their [data visualizations and mapping of registered studies](#).

These provide easy ways to see the status of COVID-19 studies based on country in which they are taking place, study design, disease severity in study participants, and type of treatment being studied, as well as network maps of these studies (<https://www.covid-nma.com/dataviz/>)

## Living synthesis of study results

The living systematic reviews of COVID-19 study results focuses on three areas: pharmacologic treatments, ICU supportive treatments, and preventive treatments.

For each ([https://covid-nma.com/living\\_data/index.php](https://covid-nma.com/living_data/index.php)), as results are available, the team synthesizes these results, providing a list of treatment comparisons, a summary of the evidence for that comparison, and a detailed description of primary studies, including a risk of bias assessment.



## ABOUT THE COVID-NMA PROJECT

The COVID-NMA project is led by [international team of researchers](#) from Cochrane (Cochrane France, Cochrane Germany, Cochrane Ireland etc) as well as from the universit  de Paris and other universities.

A living mapping of all ongoing research on Covid-19 is available and updated every week. The team is also reporting and synthesising the data from the randomised trials every 3 days.

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