

COVID – 19 Vaccines in the United States - Update as of October 27, 2021

	Pfizer-BioNTech (Comirnaty)	Moderna	Janssen (Johnson&Johnson)
DOSING	30 mcg 10 mcg (age 5-11y) pending*	100 mcg (initial dose and additional dose for immunocompromised) 50 mcg (booster dose)	5X10 ¹⁰ particles
MECHANISM	mRNA: gives cells instructions for how to make harmless protein to break down covid-19	mRNA: gives cells instructions for how to make harmless protein to break down covid-19	Vector Vaccine: modified version of a virus to give instructions to the body to break down covid-19
AUTHORIZATION	5-11y pending 12-15y EUA 16y+ FDA approved (Comirnaty)	18y+ EUA	18y+ EUA
Dosing	2 doses, 21 days apart	2 doses, 28 days apart	1 dose
Additional dose to help those with immune-compromised systems (eg. cancer, autoimmune conditions)	Additional dose 4 weeks after completion of second dose	Additional dose 4 weeks after completion of second dose (full strength)	No recommendation
Booster dose to “boost” the immune system response (recommended for age 65y+, residents of long term care facilities, 18y+ with underlying medical conditions, those in high risk exposure groups)	Booster dose 6 months after completion of 2 dose series	Booster dose (1/2 strength) 6 months after completion of 2 dose series	Booster dose 2 months after completion of initial dose

Serious health problems are very rare

- Anaphylaxis (severe allergic reaction) may happen with any vaccination or medication and is very rare after COVID-19 vaccination:
 - 2 to 5 people per 1,000,000
- Thrombosis and thrombocytopenia syndrome (blood clotting and low platelet count) is rare:
 - 47 confirmed cases in 15,300,000 doses of J&J administered (as of October 20, 2021)
 - 2 confirmed cases in 394,000,000 doses of Moderna vaccines (no increased risk)
 - Women under 50 years of age should be aware of this very rare risk
- Myocarditis and Pericarditis (heart muscle inflammation and heart lining inflammation) is rare:
 - 963 confirmed cases in 414,000,000 doses administered, still being investigated if the conditions are related to the COVID-19 vaccines
- Report of death after COVID-19 vaccination is very rare:
 - 0.0022% (9,143 reports of death in over 414,000,000 doses administered in the US)
 - Reports of death does not mean that the vaccine was the direct cause

Source: CDC (Centers for Disease Control and Prevention)

Medications for Treatment of COVID-19 – updated October 15, 2021

Medication	Type of medication	Recommendations	Notes
Dexamethasone	Corticosteroid	<p>Recommendation for use in <u>hospitalized patients requiring oxygen</u></p> <p>no recommendation for ambulatory care use</p>	
Remdesivir (Veklury)	Antiviral medication for treatment of COVID-19	<p>FDA approved: suggest use with <u>hospitalized patient requiring oxygen but not with critical disease</u> (mechanical ventilation, ECMO)</p> <p>No recommendation for ambulatory care</p>	<p>5 days course, may extend to 10 days</p> <p>Intravenous medication only</p>
Tocilizumab (Actemra)	Interleukin-6 antagonist (blocks IL-6 which is a substance that causes inflammation in the body), also used for rheumatoid arthritis, interstitial lung disease	EUA: suggest use <u>with corticosteroids in hospitalized patients requiring oxygen</u>	8mg/kg/dose IV x1, may repeat x1 after 8 hours
Sarilumab (Kevzara)	Interleukin-6 antagonist (blocks IL-6 which is a substance that causes inflammation in the body), also used for rheumatoid arthritis	EUA: suggest use <u>with corticosteroids in hospitalized patients requiring oxygen</u>	
Baricitinib (Olmiant)	Disease-modifying antirheumatic drug (DMARD) also used for treatment of rheumatoid arthritis	EUA: suggest use in hospitalized patients requiring oxygen	<p>4 mg/day up to 14d</p> <p>Most benefit in severe COVID-19 on high-flow oxygen</p> <p>Should not be used with IL-6 inhibitors</p> <p>May be used with remdesivir and corticosteroids</p>
Tofacitinib (Xeljanz)	Disease-modifying antirheumatic drug (DMARD) also used for treatment of rheumatoid arthritis, ulcerative colitis, psoriatic arthritis	EUA: suggest use in hospitalized patients requiring oxygen or high-flow oxygen	<p>Should be used with prophylactic anticoagulation</p> <p>Should not be used with IL-6 inhibitors</p> <p>Trial did not include immunocompromised patients</p>

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Bamlanivimab/etesevimab	Monoclonal antibody for COVID-19	EUA: suggest use with <u>mild-moderate ambulatory disease who are at high risk of progression to severe disease</u> or for patients admitted to the hospital for reasons other than COVID-19	700mg/1400mg IV or SC x 1 limited data in <18y Bamlanivimab monotherapy is not recommended for use
Casirivimab/imdevimab (REGEN-COV)	Monoclonal antibody for COVID-19	EUA: suggest use with <u>mild-moderate ambulatory disease who are at high risk of progression to severe disease</u> or for patients admitted to the hospital for reasons other than COVID-19	600mg/600mg IV or SC limited data in <18y
Sotrovimab	Monoclonal antibody for COVID-19	EUA: suggest use with <u>mild-moderate ambulatory disease who are at high risk of progression to severe disease</u> or for patients admitted to the hospital for reasons other than COVID-19	500 mg IV x 1 limited data in <18y
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Ivermectin (Stromectol)	Antiparasitic medication used for treatment of scabies, onchocerciasis, strongyloidiasis	Suggest against use except in clinical trial – hospitalized and ambulatory care	
Famotidine (Pepcid, Zantac)	Histamine (H2) blocker used for gastric reflux and stomach and small intestine ulcers, available OTC	Suggest against use except in clinical trial	
Convalescent plasma	Plasma transfusion containing antibodies against COVID-19	Suggest against use in hospitalized patient Only for use in clinical trials in ambulatory care	Was recommended for use in hospitalized patients in early treatment
Hydroxychloroquine	Disease-modifying antirheumatic drug (DMARD) used in treatment of malaria, lupus, rheumatoid arthritis	Recommend against use – ambulatory and hospitalized	Emergency authorization in early 2020, authorization revoked June 15, 2020
Lopinavir/ritonavir	Protease inhibitors used in treatment of HIV	Recommend against use – ambulatory and hospitalized	

Sources: IDSA (Infectious Diseases Society of America); FDA (Food and Drug Administration), Epocrates