COVID-19 VACCINE COMPARISON CHART from The Medical Letter®

	FDA Authorized for Emergency Use in the US			Not Authorized in the US	
	Pfizer/BioNTech	**Moderna**	**J&J (Janssen)**	**AstraZeneca**	**Novavax**
Name	BNT162b2	mRNA-1273	Ad26.COV2.S	ChAdOx1 nCoV-19	NVX-CoV2373
Vaccine Type	mRNA	mRNA	Adenovirus vector	Adenovirus vector	Recombinant nanoparticle
Age	≥12 years old	≥18 years old	≥18 years old	≥18 years old	≥18 years old
Dosage	2 doses (0.3 mL) 21 days apart	2 doses (0.5 mL) 28 days apart	1 dose (0.5 mL)	2 doses 4-12 weeks apart	2 doses 21 days apart
Efficacy					
Overall	▪ 95% (7 days after 2nd dose)[1]	▪ 94.1% (14 days after 2nd dose)[2]	▪ 66.1% (overall)[3,4] ▪ 72.0% (US)[3,4] *for moderate-severe COVID-19 from day 28	▪ 66.7% (overall; >14 days after 2nd dose)[5] ▪ 82.4% (2nd dose ≥12 wks after 1st dose)[5] ▪ 54.9% (2nd dose <6 wks after 1st dose)[5] ▪ 76% (US overall; 15 days after 2nd dose)[13]	▪ 89.7% (overall; 7 days after 2nd dose)[6]
In Elderly Persons	94.7% (≥65 yrs)[1]	86.4% (≥65 yrs)[2]	66.2% (≥60 yrs)[4]	Limited data	27% of patients in the trial were >65 yrs[6]
In Adolescents (12-15 years old)	100%[14]	96%[26]	-	-	-
In Severe Disease	90%[1]	100%[2]	Overall: 85.4%[4] US: 87.6%[4]	100%[5,8]	100%[9]
COVID-19 Death	100%[1]	100%[2]	100%[4]	100%	100%[9]
UK Variant (B.1.1.7)	85%[23]; 89.5%[25]	*In vitro* activity[11]	~60-75%[7]	74.6%[5]; 70.4%[22]	86.3%[9]
South Africa Variant (B.1.351)	75.0%[25]	*In vitro* lower activity[11]	64.0%[4]	10.4%[12]	43.0% overall; 51.0% HIV-negative[9]
Brazil Variant (P.1)	*In vitro* activity[10]	*In vitro* lower activity[11]	68.1%[4]	Effective (prelim data)	Data not available
NY Variant (B.1.526)	*In vitro* lower activity[27]	*In vitro* lower activity[27]	Data not available	Data not available	Data not available
CA Variant (B.1.427/B.1.429)	*In vitro* lower activity[28]	*In vitro* lower activity[28]	Data not available	Data not available	*In vitro* lower activity[28]
India Variant (B.1.617)	Data not available	Data not available	Data not available	Data not available	Data not available
Variant-Specific Vaccine	Developing booster	Developing booster	Adapting vaccine	Adapting vaccine	Developing booster
Storage Requirements					
Transport and Storage	-60 to -80°C Alt: -25 to -15°C x 2 wks	-25 to -15°C	2-8°C	2-8°C	2-8°C
Excursions at distribution	▪ 2-8°C x 5 days ▪ 8-25°C x ≤2 hrs	▪ 2-8°C x 30 days ▪ 8-25°C x 12 hrs	▪ 9-25°C x 12 hrs	-	-
After Puncture/Dilution	▪ 2-25°C x 6 hrs	▪ 2-25°C x 6 hrs	▪ 2-8°C x 6 hrs ▪ 8-25°C x 2 hrs	▪ 2-8°C x 48 hrs ▪ 9-30°C x 6 hrs	-

Last Update: 5/10/2021

	Pfizer/BioNTech	Moderna	J&J (Janssen)	AstraZeneca	Novavax
Some Post-Authorization Reports					
Efficacy	▪ 90% (overall for mRNA vaccines under real-world conditions; ≥14 days after 2nd dose)[15] ▪ 46% after 1st dose and 92% after 2nd dose (Israel)[24] **CDC report[21]** ▪ 5814 vaccine breakthrough infections out of >75 million vaccinated persons in the US ▪ 2622 (45%) were ≥60 years old ▪ 3752 (65%) in women ▪ 1695 (29%) asymptomatic ▪ 396 (7%) hospitalized; of those, 133 (34%) asymptomatic or unrelated to COVID19 ▪ 74 (1%) died; of those, 9 (12%) asymptomatic or death unrelated to COVID-19	▪ 90% (overall for mRNA vaccines under real-world conditions; ≥14 days after 2nd dose)[15] **CDC report[21]** ▪ 5814 vaccine breakthrough infections out of >75 million vaccinated persons in the US ▪ 2622 (45%) were ≥60 years old ▪ 3752 (65%) in women ▪ 1695 (29%) asymptomatic ▪ 396 (7%) hospitalized; of those, 133 (34%) were asymptomatic or unrelated to COVID19 ▪ 74 (1%) died; of those, 9 (12%) asymptomatic or death unrelated to COVID-19	**CDC report[21]** ▪ 5814 vaccine breakthrough infections out of >75 million vaccinated persons in the US ▪ 2622 (45%) were ≥60 years old ▪ 3752 (65%) in women ▪ 1695 (29%) asymptomatic ▪ 396 (7%) hospitalized; of those, 133 (34%) were asymptomatic or unrelated to COVID19 ▪ 74 (1%) died; of those, 9 (12%) were asymptomatic or death was unrelated to COVID-19	-	-
Safety	▪ Cases of herpes zoster reactivation in patients with autoimmune inflammatory rheumatic diseases[16]	▪ Delayed cutaneous reactions[17]	▪ CDC/FDA reviewed cases of thrombosis-thrombocytopenia syndrome (TTS) and recommend use of the vaccine resume in the US w/o age/gender restiction[18] ▪ risk highest in women 18-49 years old ▪ onset mean of 8 days post-vaccination (range 6-15 days) ▪ vaccine labeling now contains information about the risk [4,19]	▪ European Medicines Agency (EMA) reports possible link between vaccine and cases of CVST and splanchnic vein thrombosis with thrombocytopenia[20] ▪ Some countries have suspended or limited use of the vaccine	-
For more information see Treatments Considered for COVID-19					

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