

COVID-19 vaccine update

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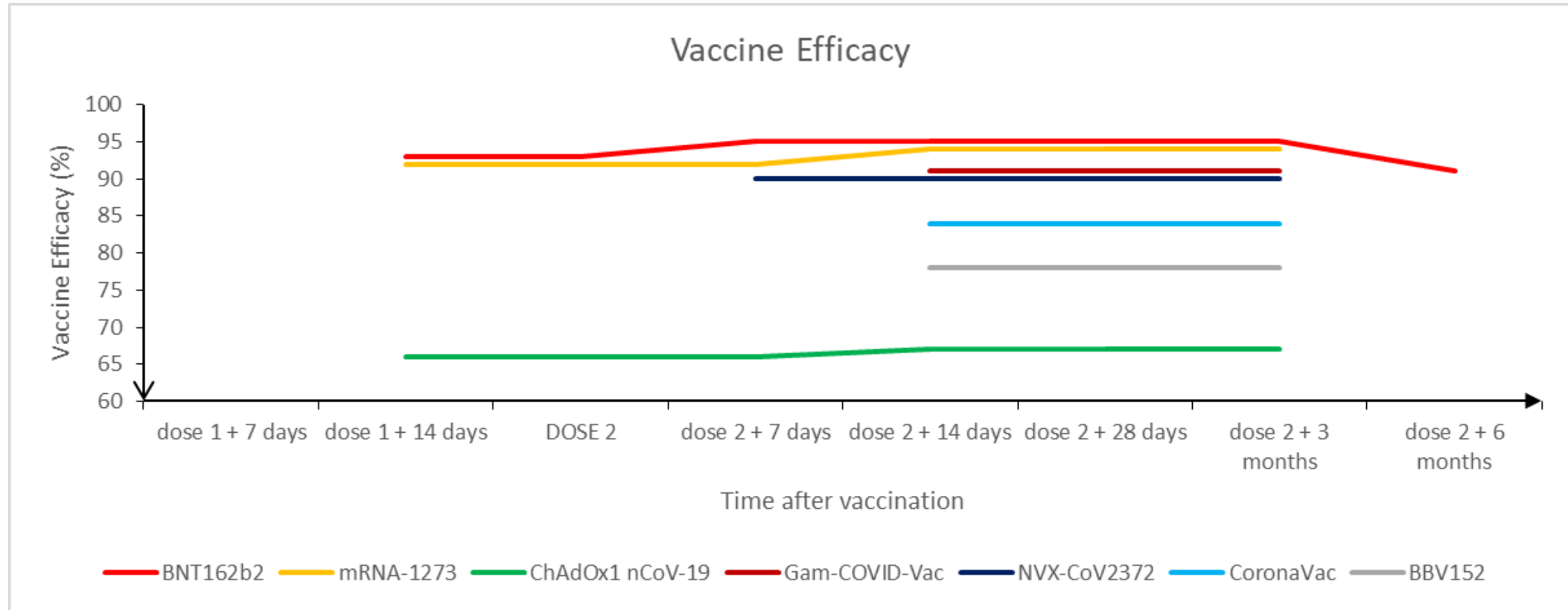
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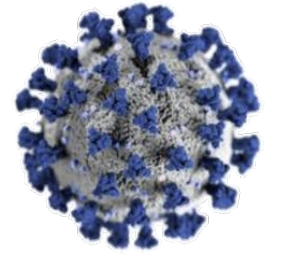
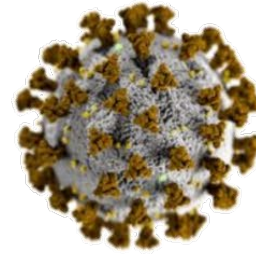
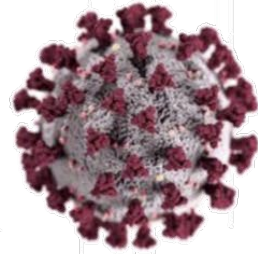
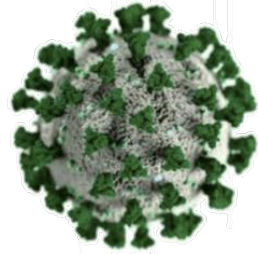
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We have multiple effective vaccines



We have variants of concern (VOCs)



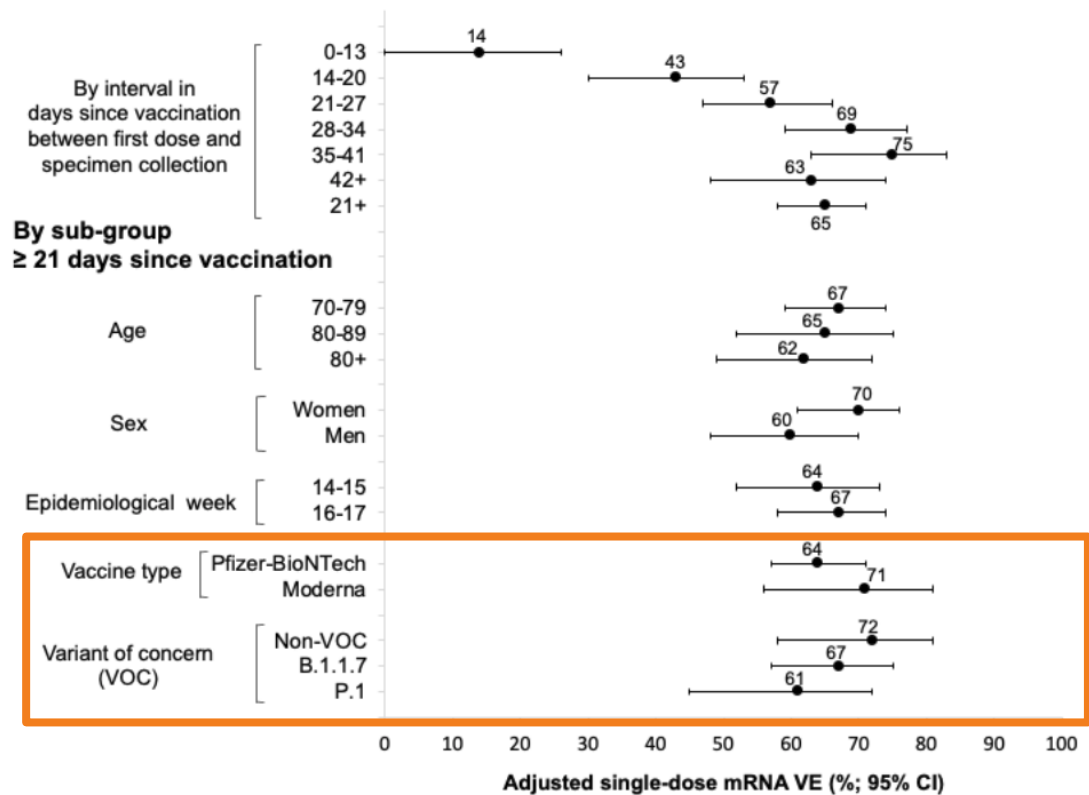
Name	Alpha	Beta	Gamma	Delta
Lineage	B.1.1.7	B.1.351	P.1	B.1.617
First detected	Sep 2020	Oct 2020	Dec 2020	Dec 2020
Country of first detection	UK	South Africa	Brazil	India
Number of spike mutations	10-13	10	11	2-6
Increased transmission	✓	✓	✓	✓
Increased disease severity	✗	✓	(✓)	?
Reduced serum neutralization	(✓) minimal	✓	✓	(✓) minimal
Impact on vaccine effectiveness	(✓) minimal	(✓) variable	(✓) minimal	(✓) minimal

<https://covariants.org>; <https://www.ecdc.europa.eu/en/publications-data/covid-19-infographic-mutations-current-variants-concern>; <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2021-05-12/10-COVID-Scobie-508.pdf>



Vaccine effectiveness against gamma variant

Figure 2 Adjusted vaccine effectiveness estimates by interval in days since vaccination and restricted by sub-group, adults ≥ 70 years of age, British Columbia, Canada, weeks 14-17



VE = vaccine effectiveness; CI = confidence interval

All vaccine effectiveness estimates are adjusted for age group (70-79, 80-89, 90+ years); sex (men, women); epidemiological week (14, 15, 16, or 17); and health authority (HA) (Fraser HA, Interior HA, Northern HA, Vancouver Coastal HA, Vancouver Island HA). See **Supplementary Tables S2-S8** for details.

Vaccine effectiveness against delta variant

Vaccination status		Alpha			Delta		
		OR vs symptomatic disease	HR vs hospitalisation	VE vs hospitalisation	OR vs symptomatic disease	HR vs hospitalisation	VE vs hospitalisation
Any vaccine							
	Dose 1	0.51 (0.48-0.55)	0.44 (0.28-0.70)	78% (65-86)	0.69 (0.64-0.75)	0.37 (0.22-0.63)	75% (57-85)
	Dose 2	0.13 (0.1-0.15)	0.64 (0.24-1.72)	92% (78-97)	0.20 (0.18-0.23)	0.29 (0.11-0.72)	94% (85-98)
Pfizer							
	Dose 1	0.53 (0.47-0.58)	0.32 (0.14-0.73)	83% (62-93)	0.64 (0.54-0.77)	0.10 (0.01-0.76)	94% (46-99)
	Dose 2	0.06 (0.05-0.08)	0.88 (0.21-3.77)	95% (78-99)	0.12 (0.1-0.15)	0.34 (0.10-1.18)	96% (86-99)
Astrazeneca							
	Dose 1	0.51 (0.48-0.55)	0.48 (0.30-0.77)	76% (61-85)	0.70 (0.65-0.76)	0.41 (0.24-0.70)	71% (51-83)
	Dose 2	0.26 (0.21-0.32)	0.53 (0.15-1.80)	86% (53-96)	0.33 (0.28-0.39)	0.25 (0.08-0.78)	92% (75-97)

Public Health England 14th June, 2021: https://khub.net/web/phe-national/public-library/-/document_library/v2WsRK3ZIEig/view_file/479607329?_com_liferay_document_library_web_portlet_DLPortlet_INSTANCE_v2WsRK3ZIEig_direct=https%3A%2F%2Fkhub.net%3A443%2Fweb%2Fphe-national%2Fpublic-library%2F-document_library%2Fv2WsRK3ZIEig%2Fview%2F479607266

Thank you



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