

GRADE Evidence Profile: Vaccination with mRNA-1273 (Moderna) against COVID-19

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Vaccination with mRNA-1273	No vaccination	Vaccine efficacy (VE) or risk ratio (RR) (95% CI)	Absolute		
COVID-19 (lab-confirmed); without evidence of prior infection; all age groups (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	11/13934 (0.08%)	185/13883 (1.3%)	VE 94.1 (89.3 to 96.8)	13 fewer per 1000 (from 12 fewer to 13 fewer)	⊕⊕⊕⊕ MODERATE	IMPORTANT
COVID-19 (lab-confirmed); without evidence of prior infection; age 18-64 years (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	7/10551 (0.07%)	156/10521 (1.5%)	VE 95.6 (90.6 to 97.9)	14 fewer per 1000 (from 13 fewer to 15 fewer)	⊕⊕⊕⊕ MODERATE	IMPORTANT
COVID-19 (lab-confirmed); without evidence of prior infection; age ≥65 years (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	4/3583 (0.11%)	29/3552 (0.82%)	VE 86.4 (61.4 to 95.2)	7 fewer per 1000 (from 5 fewer to 8 fewer)	⊕⊕⊕⊕ MODERATE	IMPORTANT
COVID-19 (lab-confirmed); without evidence of prior infection; age ≥75 years (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	0/630 (0%)	7/688 (1%)	VE 100 (95%CI not calculated)	10 fewer per 1000 (from 10 fewer to 10 fewer)	⊕⊕⊕⊕ MODERATE	IMPORTANT
Hospitalisation due to COVID-19 (proxy: severe COVID-19; lab-confirmed); without evidence of prior infection; all age groups (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	serious ²	serious ²	none	0/13934 (0%)	30/13883 (0.22%)	VE 100 (95%CI not calculated)	2 fewer per 1000 (from 2 fewer to 2 fewer)	⊕○○○ VERY LOW	CRITICAL

									calculated)	fewer)		
Death due to COVID-19 (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ³	none	0/14134 (0%)	1/14073 (0.007%)	VE 100 (95%CI not calculated)	7 fewer per 100,000 (from 7 fewer to 7 fewer)	⊕⊕⊕⊕ LOW	CRITICAL
Local reaction (example: pain at injection site after dose 1) (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	12690/15164 (83.7%)	2658/15151 (17.5%)	-		⊕⊕⊕⊕ MODERATE	IMPORTANT
Systemic reaction (example: fatigue after dose 1; age 16-55 years) (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	5635/15167 (37.2%)	4133/15155 (27.3%)	-		⊕⊕⊕⊕ MODERATE	IMPORTANT
Any serious treatment-emergent adverse event (follow-up median 2 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	82/15184 (0.54%)	86/15165 (0.57%)	-		⊕⊕⊕⊕ MODERATE	CRITICAL
ICU admission due to COVID-19 - not reported												
0	-	-	-	-	-	none	-	-	-	-		CRITICAL
Intubation due to COVID-19 - not reported												
0	-	-	-	-	-	none	-	-	-	-		CRITICAL
Adverse events of special interest - not reported												
0	-	-	-	-	-	none	-	-	-	-		CRITICAL

¹ exclusion of participants in both arms not completely transparently described; impact on results cannot definitely be excluded

² severe COVID-19 used as proxy for hospitalization (indirectness regarding outcome)

³ Wide 95% confidence interval

⁴ part of study personnel was not blinded (incl. vaccine administrators). This could have had an impact on recognition of events/reactions by participants if information on allocation was communicated to them.