

**Table S2.** Definitions of vaccine effectiveness in comparative studies of monovalent versus bivalent COVID-19 vaccines

No.	Study	Country, year	Settings	Age (y)	Sample size	Study design	VE definition	Vaccine type 1	Comparator vaccine type 2	Dependent/ outcome variable
1	Andersson et al. (2023) [119]	Denmark, Finland, Norway, Sweden 2022–2023	General population	≥ 50	3,588,054	Prospective cohort	1 – RR	Pfizer Bivalent, Moderna Bivalent	Monovalent	Hospitalization, death
2	Kim et al. (2023) [120]	Korea, 2022	General population	≥ 18	2,151,216	Prospective cohort	1 – HR	Pfizer Bivalent, Moderna Bivalent	Monovalent	Infection, severe disease, death
3	Link-Gelles et al. (2023) [121]	USA, 2022–2023	Children	6 mo–5 y	90,905	Test-negative design	(1 – OR) × 100	Pfizer Bivalent, Moderna Bivalent	Monovalent	ICU admission
4	Stecher et al. (2023) [122]	Norway, 2022–2023	General population	≥ 75	408,073	Prospective cohort	HR	Pfizer Bivalent, Moderna Bivalent	Monovalent	Death, all-cause mortality
5	Grewal et al. (2024) [123]	Canada, 2022	General population	≥ 50	16,247	Test-negative design	1 – OR	Pfizer Bivalent, Moderna Bivalent	Monovalent	Severe disease

COVID-19, coronavirus disease 2019; VE, vaccine effectiveness; RR, relative risk; HR, hazard ratio; USA, United States of America; OR, odds ratio; ICU, intensive care unit.