Covid Vaccines Effectiveness (CoVE)

Effectiveness of heterologous and booster COVID-19 vaccination in 5 European countries, using a cohort approach in children and adults with a full primary COVID-19 vaccination regimen

Specific Contract No 01 implementing framework contract No EMA/2020/46/TDA/L5.06.

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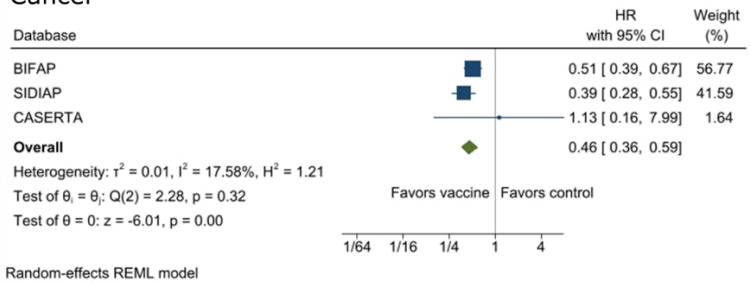
Severe COVID-19 infection

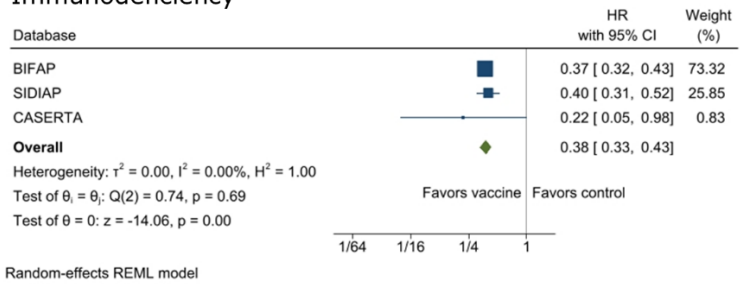
HOMOLOGOUS vs NO BOOSTER

Cancer



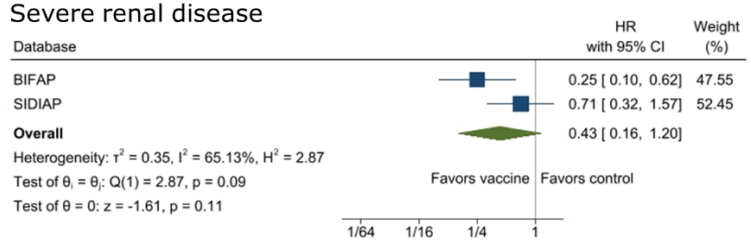
Random-effects REML model

Immunodeficiency



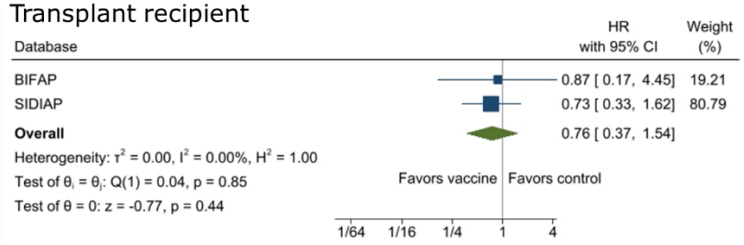
Random-effects REML model

Severe renal disease



Random-effects REML model

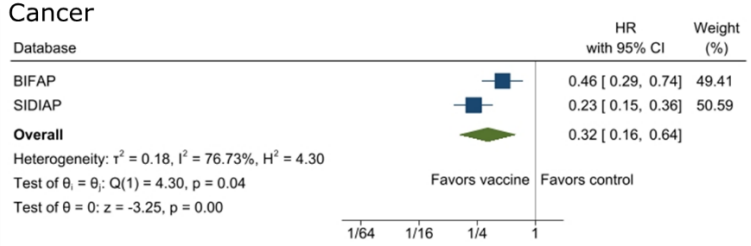
Transplant recipient



Random-effects REML model

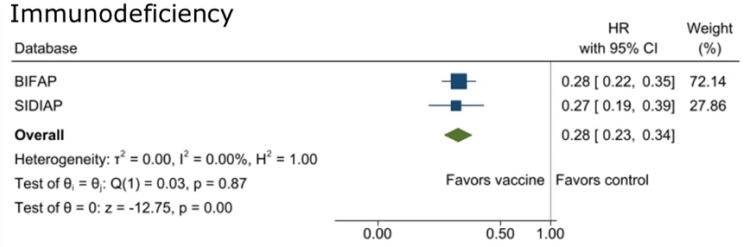
HETEROLOGOUS (homologous primary) vs NO BOOSTER

Cancer



Random-effects REML model

Immunodeficiency



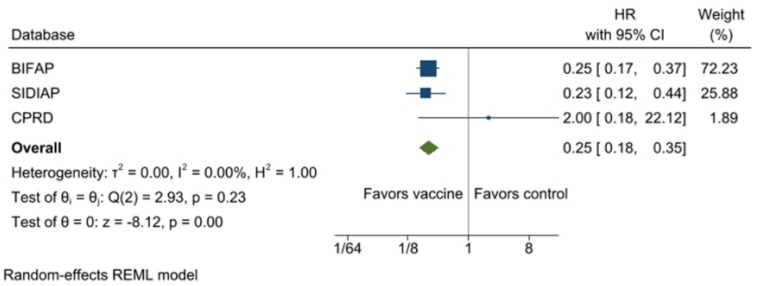
Random-effects REML model

Death with COVID-19 in adults - Booster vaccination schemes

Death with COVID-19 infection

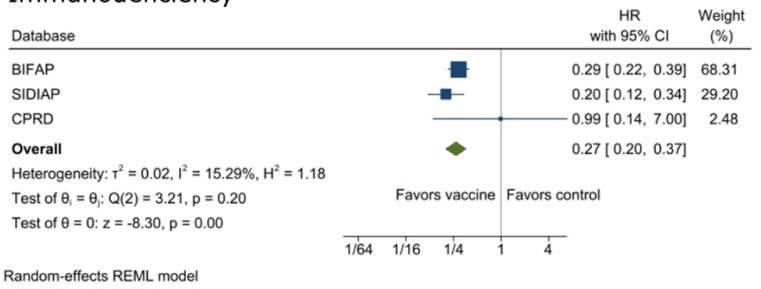
HOMOLOGOUS vs NO BOOSTER

Cancer



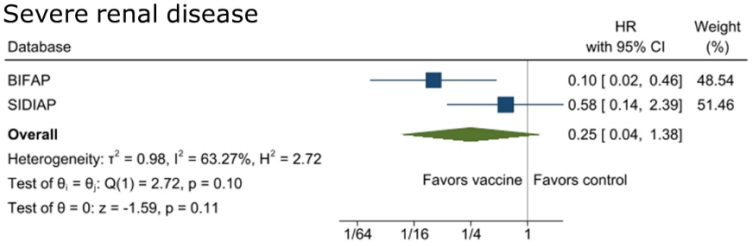
Random-effects REML model

Immunodeficiency



Random-effects REML model

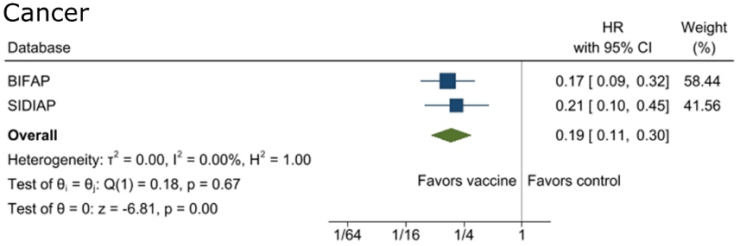
Severe renal disease



Random-effects REML model

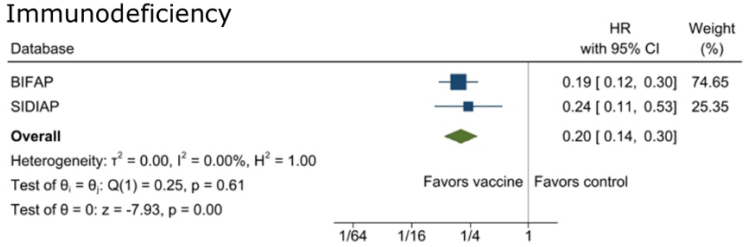
HETEROLOGOUS (homologous primary) vs NO BOOSTER

Cancer



Random-effects REML model

Immunodeficiency



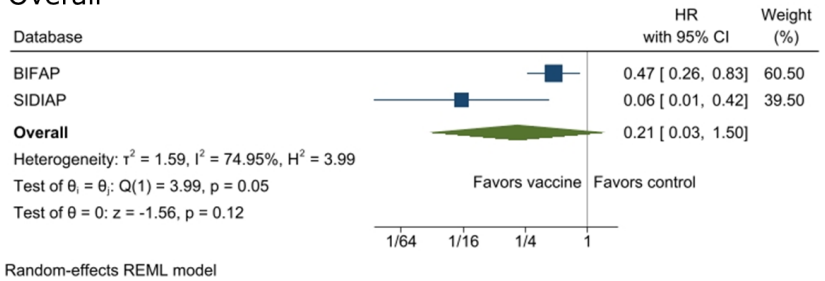
Random-effects REML model

Severe COVID-19 in children (5-14 years old)

CHILDREN (5-14 years old)

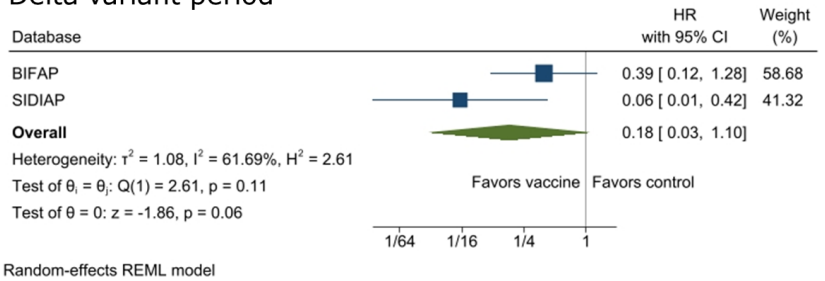
VACCINATED vs NO VACCINATED

Overall



Random-effects REML model

Delta variant period



Random-effects REML model

Severe COVID-19 - summary

Comparison and population	Adjusted HR (95% CI)	Adjusted VE (95% CI)
Homo-primary vs Non-vaccinated among children without previous Covid-19 infection		
Overall	0.21 (0.03-1.50)	79% (-50 to 97%)
Delta	0.18 (0.03-1.10)	82% (-10 to 97%)
Omicron (only BIFAP-ES)	NA	NA
Homo-primary + Homo-Booster vs Homo-primary + No Booster among adults without previous Covid-19 infection		
Patients with immunodeficiency or immunosuppressant	0.38 (0.33-0.43)	62% (57 to 67%)
Patients with cancer	0.46 (0.36-0.59)	54% (41 to 64%)
Patients receiving transplants	0.76 (0.37-1.54)	24% (-54 to 63%)
Patients with severe renal disease	0.43 (0.16-1.2)	57% (-20 to 84%)
Patients with Down Syndrome	no data	
Homo-primary + Hetero-Booster vs Homo-primary + No Booster among adults without previous Covid-19 infection		
Patients with immunodeficiency or immunosuppressant	0.28 (0.23-0.34)	72% (66 to 77%)
Patients with cancer	0.32 (0.16-0.64)	68% (36 to 84%)
Patients receiving transplants	no data	
Patients with severe renal disease (only BIFAP-ES)	0.67 (0.16-2.87)	33% (-187 to 84%)
Patients with Down Syndrome	no data	
Hetero-primary + Any Booster vs Hetero-primary + No Booster among adults without previous Covid-19 infection		
Patients with immunodeficiency or immunosuppressant	no data	
Patients with cancer	no data	
Patients receiving transplants	no data	
Patients with severe renal disease	no data	
Patients with Down Syndrome	no data	

Death with COVID-19 - summary

Comparison and population	Adjusted HR (95% CI)	Adjusted VE (95% CI)
Homo-primary vs Non-vaccinated among children without previous Covid-19 infection		
Overall	No data	No data
Homo-primary + Homo-Booster vs Homo-primary + No Booster among adults without previous Covid-19 infection		
Patients with immunodeficiency or immunosuppressant	0.27 (0.20-0.37)	73% (63 to 80%)
Patients with cancer	0.25 (0.18-0.35)	75% (65 to 82%)
Patients receiving transplants	no data	
Patients with severe renal disease	0.25 (0.04-1.38)	75% (-38 to 96%)
Patients with Down Syndrome	no data	
Homo-primary + Hetero-Booster vs Homo-primary + No Booster among adults without previous Covid-19 infection		
Patients with immunodeficiency or immunosuppressant	0.20 (0.14-0.30)	80% (70 to 86%)
Patients with cancer	0.19 (0.11-0.30)	81% (70 to 89%)
Patients receiving transplants	no data	
Patients with severe renal disease	no data	
Patients with Down Syndrome	no data	
Hetero-primary + Any Booster vs Hetero-primary + No Booster among adults without previous Covid-19 infection		
Patients with immunodeficiency or immunosuppressant	no data	
Patients with cancer	no data	
Patients receiving transplants	no data	
Patients with severe renal disease	no data	
Patients with Down Syndrome	no data	