

SUPPLEMENTAL MATERIAL

TABLES

Table S1 Baseline characteristics according to treatment strategy reported in the individual studies

	Hirji et al. ⁹			Deharo et al. ¹⁰			Malik et al. ¹¹			Patel et al. ¹²			Woitek et al. ¹³		
	ViV	rSAVR	p	ViV	rSAVR	p	ViV	rSAVR	p	ViV	rSAVR	p	ViV	rSAVR	p
Age, years	78.0±8	77.4±5	0.58	74.9±9.7	74.5±8.2	0.33	73.7±10.4	73.3±8.6	0.73	73±13.1	61.3±14.8	<0.0001	76.2±8.0	58.5±14.4	<0.05
Male gender, %	50	56	0.52	56.1	57.7	0.52	52.8	54.9	0.71	67.9	66.3	0.79	62.6	59.9	>0.05
Cardiovascular risk factors															
Arterial Hypertension, %	72	73	1.00	79.4	77.8	0.48	83.1	78.2	0.26	93.6	83.7	0.01	98.0	86.5	>0.05
Hyperlipidaemia, %	-	-	-	54.1	52.9	0.63	-	-	-	-	-	-	-	-	-
Diabetes Mellitus, %	19	15	0.67	31.7	30.3	0.57	32.4	33.1	0.9	39	34.9	0.51	36.1	16.2	<0.05
Current Smoking, %	-	-	-	13.8	15.2	0.45	-	-	-	-	-	-	-	-	-
BMI, kg/m ²	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medical history															
Prior stroke, %	9	12	0.79	5.3	5	0.81	-	-	-	-	-	-	8.8	7.2	<0.05
Prior PCI, %	-	-	-	14.4	13.5	0.65	-	-	-	-	-	-	14.3	6.3	-
Prior CABG, %	31	23	0.37	24.8	22.3	0.26	-	-	-	-	-	-	32.7	9.9	<0.05
Renal insufficiency, %	-	-	-	15.9	15.2	0.72	26.8	26.8	>0.999	5.9	3.5	0.56	26.6	7.2	<0.05
LV ejection fraction, %	-	-	-	-	-	-	-	-	-	-	-	-	54.5±13.9	57.4±10.2	>0.05
Risk scores															
Log EuroSCORE	22.1±16	22.1±18.3	0.99	-	-	-	-	-	-	-	-	-	-	-	-
EuroScore II	-	-	-	4.7±1	4.7±1	0.46	-	-	-	-	-	-	-	-	-
STS PROM score	7.2±4.9	5.8±4.6	0.09	-	-	-	-	-	-	8.4±7.6	5.5±4.6	0.005	8.3±6.1	2.8±2.1	<0.05
Procedural characteristics															
Transfemoral access, %	54	-	-	-	-	-	-	-	-	84	-	-	100	-	-
Transapical access, %	31	-	-	-	-	-	-	-	-	6	-	-	0	-	-
Transaortic access, %	-	-	-	-	-	-	-	-	-	1	-	-	0	-	-
Subclavian access, %	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
Procedure duration, min	-	-	-	-	-	-	-	-	-	-	145±42	-	-	-	-
CPB time, min	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cross clamp time, min	-	-	-	-	-	-	-	-	-	-	105±29	-	-	-	-

BMI=body mass index; CABG=coronary artery bypass grafting; CPB=cardiopulmonary bypass; LV=left ventricular; PCI=percutaneous coronary intervention; rAVR=redo aortic valve replacement; STS-PROM=Society of Thoracic Surgeons – Predicted Risk of Mortality; ViV=transcatheter valve-in-valve implantation.

Table S1 Baseline characteristics according to treatment strategy reported in the individual studies (continued)

	Sedeek et al. ¹⁵			Spaziano et al. ¹⁶			Silaschi et al. ¹⁸			Erlebach et al. ²⁰		
	ViV	rSAVR	p	ViV	rSAVR	p	ViV	rSAVR	p	ViV	rSAVR	p
Age, years	79 (76-83)	72 (63-77)	<0.001	78.0±8	77.4±5	0.58	78.6±7.5	72.9±6.6	0.06	78.1±6.7	66.2±13.1	<0.001
Male gender, %	73 (81)	177 (68)	0.02	50	56	0.52	57.7	61.0	0.44	54	73	0.06
Arterial Hypertension, %	79 (88)	191 (73)	0.005	72	73	1.00	-	-	-	82	73	0.35
Hyperlipidaemia, %	-	-	-	-	-	-	-	-	-	-	-	-
Diabetes Mellitus, %	25 (28)	57 (22)	0.258	19	15	0.67	11.3	10.2	1.0	20	10	0.17
Current Smoking, %	-	-	-	-	-	-	-	-	-	-	-	-
BMI, kg/m ²	28 (25-33)	28 (25-32)	0.37	-	-	-	-	-	-	-	-	-
Prior stroke, %	30 (33)	48 (18)	0.004	9	12	0.79	14.1	10.1	0.6	8	0	0.05
Prior PCI, %	-	-	-	-	-	-	-	-	-	-	-	-
Prior CABG, %	43 (48)	75 (29)	0.001	31	23	0.37	-	-	-	40	12	<0.001
Renal insufficiency, %	-	-	-	-	-	-	-	-	-	-	-	-
LV ejection fraction, %	56 (45-62)	62 (55-66)	<0.001	50.7±13.5	49.5±13.4	0.58	-	-	-	49.8±13.1	56.7±15.8	0.02
Log EuroSCORE	-	-	-	22.1±16	22.1±18.3	0.99	25.1±18.9	16.8±9.3	<0.01	27.4±18.7	14.4±10	<0.001
EuroScore II	-	-	-	-	-	-	-	-	-	-	-	-
STS PROM score	7.5 (4.9-10.7)	3 (2.1-5.3)	<0.001	7.2±4.9	5.8±4.6	0.09	-	-	-	-	-	-
Transfemoral access, %	79 (88)	-	-	54	-	-	49.3	-	-	36	-	-
Transapical access, %	10 (11)	-	-	31	-	-	46.5	-	-	54	-	-
Transaortic access, %	-	-	-	-	-	-	4.2	-	-	8	-	-
Subclavian access, %	-	-	-	-	-	-	-	-	-	2	-	-
Procedure duration, min	-	-	-	-	-	-	100±48	270±77	<0.01	101±46	251±76	<0.001
CPB time, min	-	-	-	-	-	-	-	126±57	-	-	110±29	-
Cross clamp time, min	-	-	-	-	-	-	-	79±25	-	-	79±19	-

BMI=body mass index; CABG=coronary artery bypass grafting; CPB=cardiopulmonary bypass; LV=left ventricular; PCI=percutaneous coronary intervention; rAVR=redo aortic valve replacement; STS-PROM=Society of Thoracic Surgeons – Predicted Risk of Mortality; ViV=transcatheter valve-in-valve implantation.

Table S1 **Baseline characteristics according to treatment strategy reported in the individual studies (continued)**

	Stankowski et al. ¹⁴ (intermediate risk)			Stankowski et al. ¹⁴ (high risk)			Ejiofor et al. ¹⁹			Grubitzsch et al. ¹⁷			Santarpino et al. ²¹		
	ViV	rSAVR	p	ViV	rSAVR	p	ViV	rSAVR	p	ViV	rSAVR	p	ViV	rSAVR	p
Age, years	75.7±4.4	75.8±4.3	0.97	75.8±3.6	75.8±3.6	0.32	75±9.6	74.5±10.4	0.75	75.3±9.9	60±8.6	0.06	80.2±2.3	78.8±3	0.35
Male gender, %	40	70	0.06	30	50	0.36	63.6	59.1	1.00	-	-	-	66.7	25	0.16
Cardiovascular risk factors															
Arterial Hypertension, %	90	95	0.55	90	90	1.0	95.5	90.9	1.0	-	-	-	-	-	-
Hyperlipidaemia, %	80	75	0.705	90	60	0.12	-	-	-	-	-	-	-	-	-
Diabetes Mellitus, %	20	35	0.29	70	70	1.0	45.5	22.7	0.2	-	-	-	83.3	62.5	0.41
Current Smoking, %	10	5	0.55	10	10	1.0	-	-	-	-	-	-	-	-	-
BMI, kg/m ²	27.3±4.6	28.5±4.5	0.86	29.8	28.9	0.60	25.9±4.4	28.1±6.3	0.05	-	-	-	-	-	-
Medical history															
Prior stroke, %	10	5	0.55	30	10	0.26	8	0	0.05	-	-	-	-	-	-
Prior PCI, %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prior CABG, %	40	20	0.17	70	30	0.07	40	12	<0.001	-	-	-	-	-	-
Renal insufficiency, %	85	65	0.14	10	10	1.0	-	-	-	59	16	0.006	33.3	37.5	0.66
LV ejection fraction, %	56.2±8.7	58.0±7.1	0.48	45.3±14.7	52.7±12	0.23	49.8±13.1	56.7±15.8	0.02	-	-	-	53±13	58±20	0.57
Risk scores															
Log EuroSCORE	-	-	-	-	-	-	27.4±18.7	14.4±10	<0.001	51	52	0.75	33.8±13.8	36.4±24.1	0.81
EuroScore II	5.8±1.5	5.8±1.4	0.93	15.8±5.3	13.6±3.6	0.3	-	-	-	13.0±10.4	8.9±6.5	0.05	-	-	-
STS PROM score	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Procedural characteristics															
Transfemoral access, %	100	-	-	100	-	-	36	-	-	93	-	-	-	-	-
Transapical access, %	0	-	-	0	-	-	54	-	-	7	-	-	-	-	-
Transaortic access, %	0	-	-	0	-	-	8	-	-	-	-	-	-	-	-
Subclavian access, %	0	-	-	0	-	-	2	-	-	-	-	-	-	-	-
Procedure duration, min	64±54	210±74	<0.001	63±34	194±53	<0.001	101±46	251±76	<0.001	92±29	212±59	-	-	-	-
CPB time, min	-	99±45	-	-	78±26	-	-	110±29	-	-	125±36	-	-	-	-
Cross clamp time, min	-	89±35	-	-	64±15	-	-	79±19	-	-	101±25	-	-	-	-

BMI=body mass index; CABG=coronary artery bypass grafting; CPB=cardiopulmonary bypass; LV=left ventricular; PCI=percutaneous coronary intervention; rAVR=redo aortic valve replacement; STS-PROM=Society of Thoracic Surgeons – Predicted Risk of Mortality; ViV=transcatheter valve-in-valve implantation.

Table S1 Baseline characteristics according to treatment strategy reported in the individual studies (continued)

	Dokollari et al. ⁸			Cizmiz et al. ⁷		
	ViV	rSAVR	p	ViV	rSAVR	p
Age, years	79.06±7.4	67.2±14.1	<0.01	78.0±7.4	62.1±16.2	0.01
Male gender, %	43.8	64.7	0.12	56.1	57.7	0.52
Cardiovascular risk factors						
Arterial Hypertension, %	90.3	82.5	0.49	95.9	52.7	<0.001
Hyperlipidaemia, %	87.1	73.7	0.23	65.8	29.4	0.006
Diabetes Mellitus, %	22.6	28.1	0.79	42.5	11.8	0.02
Current Smoking, %	22.6	40.4	0.14	9.6	23.5	0.11
BMI, kg/m ²	27.3±4.9	27.7±6.3	0.45	27.0±5.0	25.9±5.0	0.43
Medical history						
Prior stroke, %	16.1	31.6	0.18	12.3	0	0.13
Prior PCI, %	-	-	-	-	-	-
Prior CABG, %	32.3	17.5	0.19	-	-	-
Renal insufficiency, %	-	-	-	53.4	23.5	0.03
LV ejection fraction, %	49.0±14.0	50.1±12.8	0.62	51.4±12.0	51.1±12.0	0.22
Risk scores						
Log EuroSCORE	-	-	-	-	-	-
EuroScore II	9.5±7.3	11.0±9.3	0.42	-	-	-
STS PROM score	-	-	-	6.4±3.1	6.4±3.2	-
Procedural characteristics						
Transfemoral access, %	83.1	5.2	<0.01	84.9	-	-
Transapical access, %	9.7	0	0.01	9.6	-	-
Transaortic access, %	3.2	0	0.75	5.5	-	-
Subclavian access, %	3.2	3.5	1.00	-	-	-
Procedure duration, min	85±25	251±81	<0.01	91±35	221±47	-
CPB time, min	-	110±41	-	-	118±36	-
Cross clamp time, min	-	88±34	-	-	72±18	-

BMI=body mass index; CABG=coronary artery bypass grafting; CPB=cardiopulmonary bypass; LV=left ventricular; PCI=percutaneous coronary intervention; rAVR=redo aortic valve replacement; STS-PROM=Society of Thoracic Surgeons – Predicted Risk of Mortality; ViV=transcatheter valve-in-valve implantation.

Table S2 Reported outcomes and definitions

	Dokollari et al. ⁸	Cizmiz et al. ⁷	Hirji et al. ⁹	Deharo et al. ¹⁰	Malik et al. ¹¹	Patel et al. ¹²	Woitek et al. ¹³	Stankowski et al. ¹⁴
Short-term mortality	+	+	+	+	+	+	+	+
	(30 days)	(in-hospital)	(30 days)	(30 days)	(in-hospital)	(in-hospital or within 30 days)	(30 days)	(30 days)
Long-term mortality	+	-	-	+	-	+	+	+
	(mean 3 years)			(760±795 days)		(1.2±1.8 years for rAVR 1.4±1.5 years for ViV)	(1 year)	(5 years)
Stroke	+	+	+	+	-	+	+	+
	(definition not reported)	(VARC-2)	(stroke and TIA based on ICD-9-CM and ICD-10-CM)	(all-cause, VARC-2)		(definition not reported)	(VARC-2)	(VARC-2)
Myocardial infarction	-	-	-	+	+	+	+	+
				(VARC-2)	(ICD-9, ICD-10)	(definition not reported)	(VARC-2)	(VARC-2)
Pacemaker implantation	+	+	+	+	+	+	+	+
					(ICD-9, ICD-10)			
Renal failure	+	+	+	-	+	+	+	+
	(acute kidney injury I-III)	(acute kidney injury I-III)	(based on ICD-9-CM and ICD-10-CM codes)		(ICD-9, ICD-10)	(dialysis)	(acute kidney injury II-III)	(dialysis)
Aortic regurgitation	+	+	-	-	-	+	+	+
	(mild, moderate, severe)	(mild, moderate, severe)				(mild, moderate, severe)	(mild, moderate, severe)	(mild, moderate, severe)
Severe patient-prosthesis mismatch	+	-	-	-	-	-	+	-
	(iEOA ≤0.65 cm ² /m ²)						(VARC-2)	

ICD=International Classification of Diseases; iEOA=indexed effective orifice area; rAVR= redo aortic valve replacement; RIFLE=Risk, Injury, Failure, Loss of kidney function, and End-stage kidney disease; STS-PROM=Society of Thoracic Surgeons – Predicted Risk of Mortality; TIA=transient ischemic attack; VARC=Valve Academic Research Consortium; ViV=transcatheter valve-in-valve implantation.

Table S2 Reported outcomes and definitions (continued)

	Sedeek et al. ¹⁵	Spaziano et al. ¹⁶	Grubitzsch et al. ¹⁷	Silaschi et al. ¹⁸	Ejiofor et al. ¹⁹	Erlebach et al. ²⁰	Santarpino et al. ²¹
Short-term mortality	+	+	+	+	+	+	+
	(operative)	(30 days)	(30 days)	(30 days)	(operative)	(30 days)	(in-hospital)
Long-term mortality	+	+	+	+	-	+	+
	(2.1 years, IQR 1.2-4.2)	(1 year)	(1 year)	(180 days)	(data inconclusive)	(1 year)	(21±13 months)
Stroke	+	+	+	+	+	+	+
	(definition not reported)	(VARC-2)	(VARC-2)	(VARC-2, disabling)	(definition not reported)	(VARC-2)	(definition not reported)
Myocardial infarction	-	+	+	+	-	+	+
		(VARC-2)	(VARC-2)	(VARC-2)		(VARC-2)	(definition not reported)
Pacemaker implantation	+	+	+	+	+	+	+
Renal failure	+	+	+	+	+	+	+
	(RIFLE I-III)	(dialysis)	(acute kidney injury II-III)	(acute kidney injury II-III)	(definition not reported)	(dialysis)	(dialysis)
Aortic regurgitation	+	-	+	+	+	+	+
	(moderate or severe)		(mild, moderate, severe)	(mild, moderate, severe)	(mild, moderate, severe)	(mild, moderate, severe)	(mild, moderate, severe)
Severe patient-prosthesis mismatch	+	-	+	+	-	-	+
	(iEOA ≤0.65 cm ² /m ²)		(iEOA ≤0.65 cm ² /m ²)	(iEOA ≤0.65 cm ² /m ²)			(iEOA ≤0.65 cm ² /m ²)

ICD=International Classification of Diseases; iEOA=indexed effective orifice area; rAVR=redo aortic valve replacement; RIFLE=Risk, Injury, Failure, Loss of kidney function, and End-stage kidney disease; STS-PROM=Society of Thoracic Surgeons – Predicted Risk of Mortality; TIA=transient ischemic attack; VARC=Valve Academic Research Consortium; ViV=transcatheter valve-in-valve implantation.

Table S3 List of Variables Included in Meta-Regression

1. Year of publication
 2. N in experimental group
 3. N<100 in experimental group
 4. Average age of patients undergoing ViV
 5. Average age of patients undergoing rAVR
 6. Percentage of patients with hypertension in patients undergoing ViV
 7. Percentage of patients with hypertension in patients undergoing rAVR
 8. Percentage of patients with diabetes mellitus in patients undergoing ViV
 9. Percentage of patients with diabetes mellitus in patients undergoing rAVR
 10. Percentage of patients with chronic kidney disease in patients undergoing ViV
 11. Percentage of patients with chronic kidney disease in patients undergoing rAVR
 12. Percentage of patients with peripheral vascular disease in patients undergoing ViV
 13. Percentage of patients with peripheral vascular disease in patients undergoing rAVR
 14. Percentage of patients with atrial fibrillation in patients undergoing ViV
 15. Percentage of patients with atrial fibrillation in patients undergoing rAVR
 16. Percentage of patients with prior pacemaker in patients undergoing ViV
 17. Percentage of patients with prior pacemaker in patients undergoing rAVR
 18. Percentage of patients with coronary artery disease in patients undergoing ViV
 19. Percentage of patients with coronary artery disease in patients undergoing rAVR
 20. Percentage of patients with prior myocardial infarction in patients undergoing ViV
 21. Percentage of patients with prior myocardial infarction in patients undergoing rAVR
 22. Percentage of patients with prior stroke in patients undergoing ViV
 23. Percentage of patients with prior stroke in patients undergoing rAVR
 24. Percentage of patients with prior coronary artery bypass graft in patients undergoing ViV
 25. Percentage of patients with prior coronary artery bypass graft in patients undergoing rAVR
 26. Percentage of patients with prosthesis stenosis in patients undergoing ViV
 27. Percentage of patients with prosthesis stenosis in patients undergoing rAVR
 28. Percentage of patients with prosthesis regurgitation in patients undergoing ViV
 29. Percentage of patients with prosthesis regurgitation in patients undergoing rAVR
 30. Percentage of patients with combined prosthesis dysfunction in patients undergoing ViV
 31. Percentage of patients with combined prosthesis dysfunction in patients undergoing rAVR
 32. Average LV-EF in patients undergoing ViV
 33. Average LV-EF in patients undergoing rAVR
 34. Percentage of females in patients undergoing ViV
 35. Percentage of females in patients undergoing rAVR
- LV-EF=left ventricular ejection fraction; rAVR= redo aortic valve replacement; ViV=transcatheter valve-in-valve implantation.

FIGURE LEGENDS

Figure S1 Risk of bias assessment

Figure S2 Risk estimates of secondary non-fatal clinical endpoints for ViV versus rAVR

Forest plots show results for stroke (A), myocardial infarction (B), and need for pacemaker implantation (C).

ViV = transcatheter valve-in-valve implantation; rAVR = redo aortic valve replacement; RR = risk ratio; CI = confidence interval.

Figure S3 Risk estimates of short-term and Mid-term mortality for ViV versus rAVR in studies with propensity score matching

Forest plots show results for short-term mortality (A) and mid-term mortality (B).

ViV = transcatheter valve-in-valve implantation; rAVR = redo aortic valve replacement; RR = risk ratio; CI = confidence interval.

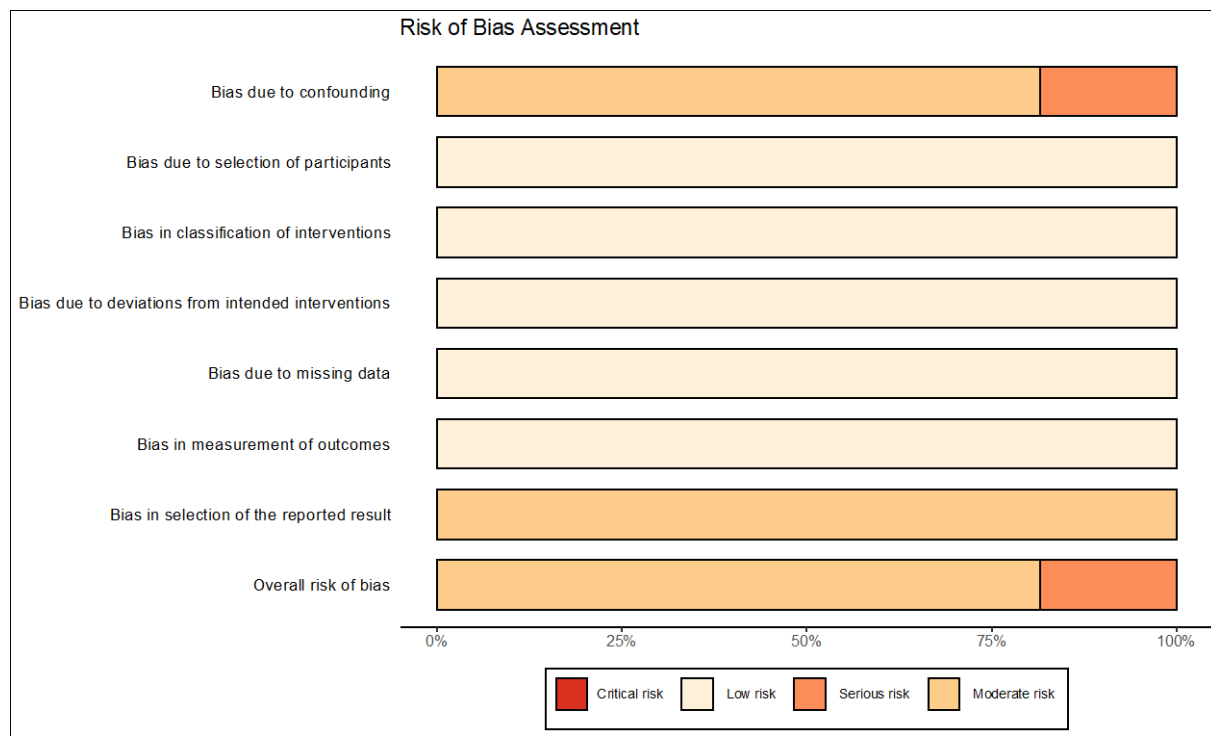


Figure S1

Hirji et al. 2020 ⁹	13	2181	20	2181	0.65 [0.32; 1.30]
Deharo et al. 2020 ¹⁰	7	717	3	717	2.33 [0.61; 8.99]
Patel et al. 2020 ¹²	2	187	6	86	0.15 [0.03; 0.74]
Woitek et al. 2020 ¹³	8	147	9	111	0.67 [0.27; 1.68]
Sedeeq et al. 2019 ¹⁵	1	90	1	260	2.89 [0.18; 45.71]
Spaziano et al. 2017 ¹⁶	1	78	0	78	3.00 [0.12; 72.52]
Cizmiciu et al. 2021 ⁷	1	73	0	17	2.23 [0.02; 247.93]
Silaschi et al. 2017 ¹⁸	0	71	2	59	0.18 [0.01; 3.40]
Stankowski et al. 2020 ¹⁴	2	30	2	30	1.00 [0.15; 6.64]
Erlebach et al. 2015 ²⁰	2	50	1	52	2.08 [0.19; 22.23]
Dokollari et al. 2021 ⁸	1	31	4	57	0.46 [0.05; 3.94]
Grubitzsch et al. 2017 ¹⁷	0	27	1	25	0.32 [0.01; 7.31]
Ejiofor et al. 2016 ¹⁹	0	22	2	22	0.20 [0.01; 3.94]
Santarpino et al. 2016 ²¹	0	6	0	8	
Total		3710		3703	0.73 [0.41; 1.30]
Prediction Interval					[0.13; 4.09]

Heterogeneity: $\chi^2_{12} = 11.52$ ($P = .49$), $I^2 = 0\%$
 Test for overall effect: $Z = -1.19$ ($P = .26$)

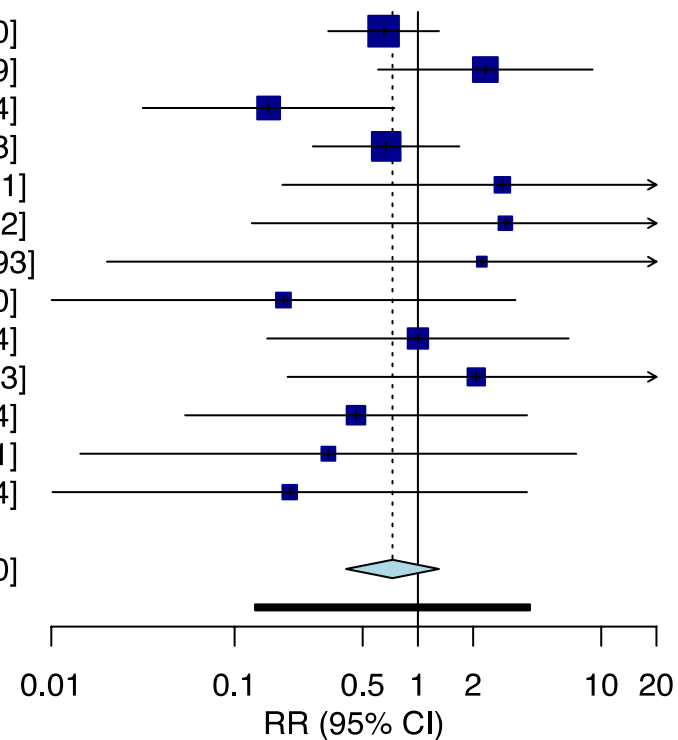


Figure S2A

Deharo et al. 2020 ¹⁰	1	717	3	717	0.33 [0.03; 3.20]
Malik et al. 2020 ¹¹	8	710	10	710	0.80 [0.32; 2.02]
Patel et al. 2020 ¹²	1	187	2	86	0.23 [0.02; 2.50]
Woitek et al. 2020 ¹³	5	147	2	111	1.89 [0.37; 9.55]
Spaziano et al. 2017 ¹⁶	1	78	0	78	3.00 [0.12; 72.52]
Cizmic et al. 2021 ⁷	
Silaschi et al. 2017 ¹⁸	1	71	1	59	0.83 [0.05; 13.00]
Stankowski et al. 2020 ¹⁴	1	30	1	30	1.00 [0.07; 15.26]
Erlebach et al. 2015 ²⁰	1	50	1	52	1.04 [0.07; 16.18]
Dokollari et al. 2021 ⁸	
Grubitzsch et al. 2017 ¹⁷	1	27	0	25	2.93 [0.12; 71.65]
Santarpino et al. 2016 ²¹	1	6	0	8	3.33 [0.18; 60.12]
Total		2023		1876	0.98 [0.55; 1.74]
Prediction Interval					[0.23; 4.24]

Heterogeneity: $\chi^2_9 = 4.72$ ($p = .86$), $I^2 = 0\%$
 Test for overall effect: $z = -0.09$ ($p = .93$)

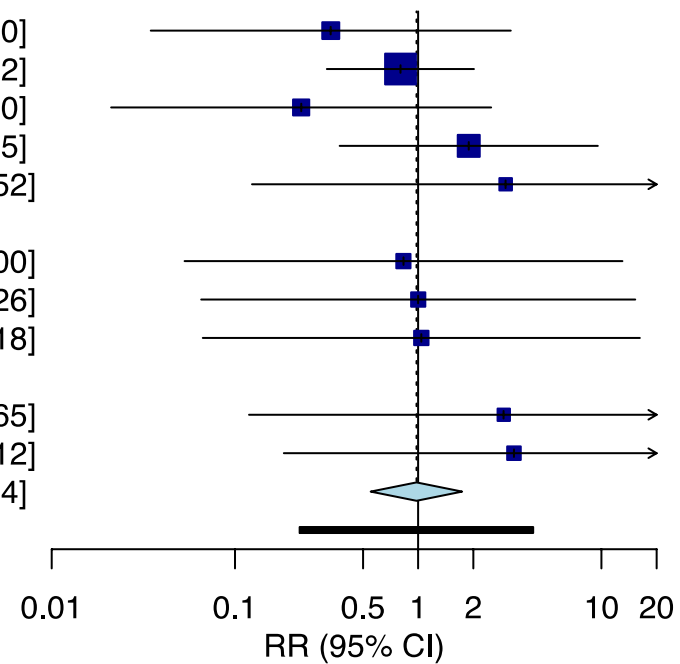


Figure S2B

Hirji et al. 2020 ⁹	238	2181	185	2181	1.29 [1.07; 1.54]
Deharo et al. 2020 ¹⁰	132	717	41	717	3.22 [2.30; 4.50]
Malik et al. 2020 ¹¹	20	710	45	710	0.44 [0.27; 0.74]
Patel et al. 2020 ¹²	3	187	5	86	0.28 [0.07; 1.13]
Woitek et al. 2020 ¹³	20	147	14	111	1.08 [0.57; 2.04]
Sedeeq et al. 2019 ¹⁵	5	69	44	233	0.38 [0.16; 0.93]
Spaziano et al. 2017 ¹⁶	8	78	8	78	1.00 [0.40; 2.53]
Cizmic et al. 2021 ⁷	5	73	1	17	1.16 [0.15; 9.33]
Silaschi et al. 2017 ¹⁸	7	71	16	59	0.36 [0.16; 0.82]
Stankowski et al. 2020 ¹⁴	2	30	1	30	2.00 [0.19; 20.90]
Erlebach et al. 2015 ²⁰	3	50	11	52	0.28 [0.08; 0.96]
Dokollari et al. 2021 ⁸	1	31	5	57	0.37 [0.04; 3.01]
Grubitzsch et al. 2017 ¹⁷	1	27	2	25	0.46 [0.04; 4.80]
Ejiofor et al. 2016 ¹⁹	1	22	1	22	1.00 [0.07; 15.00]
Santarpino et al. 2016 ²¹	0	6	1	8	0.36 [0.01; 9.09]
Total		4399		4386	0.76 [0.48; 1.19]
Prediction Interval					[0.19; 3.06]

Heterogeneity: $\chi^2_{14} = 75.02$ ($p < .001$), $I^2 = 81\%$
 Test for overall effect: $Z_{14} = -1.32$ ($p = .21$)

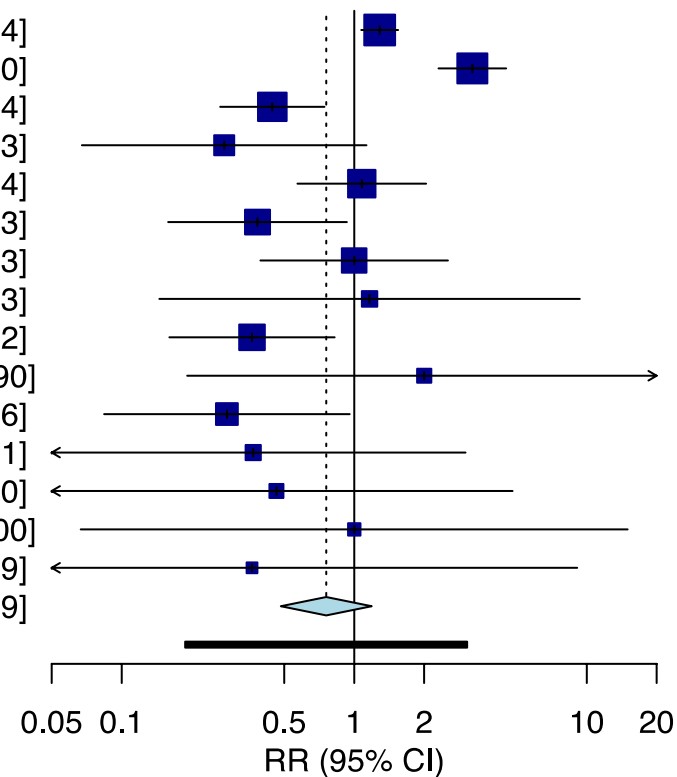


Figure S2C

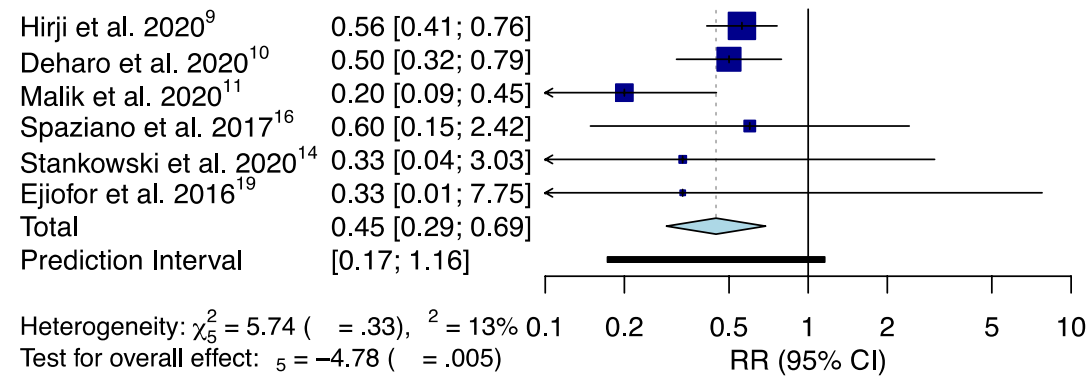


Figure S3A

	ViV		Redo			
Source	Deaths (ViV)	Total Deaths (rAVR)	Total	HR (95% CI)	P-value	
						Favours ViV Favours rAVR

 χ

Figure S3B