

SUPPLEMENTAL MATERIAL

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Supplemental Table 1. Complete search strategy**Ovid MEDLINE** (ALL – 1946 to present)

Searched on January 31, 2023

No language, article type, or publication date restrictions

Line #	Search
1	Stents/ and external.tw.
2	(external adj4 (stent or stents or stenting or stented or support or supports)).tw.
3	1 or 2
4	Saphenous Vein/
5	(Saphenous or SVG or saphena vein or saphenous venos system or vena saphena).tw.
6	4 or 5
7	3 and 6

Ovid Embase (1974 to present)

Searched on January 31, 2023

No language, article type, or publication date restrictions

Line #	Search
1	Stents/ and external.tw.
2	(external adj4 (stent or stents or stenting or stented or support or supports)).tw.
3	1 or 2
4	Saphenous Vein/
5	(Saphenous or SVG or saphena vein or saphenous venos system or vena saphena).tw.
6	4 or 5
7	3 and 6

Cochrane Library (Wiley)

Searched on January 31, 2023

No language, article type, or publication date restrictions

ID	Search
#1	(external NEAR/4 (stent or stents or stenting or stented or support or supports)):ti,ab
#2	(Saphenous or SVG or saphena vein or saphenous venos system or vena saphena):ti,ab
#3	#1 AND #2

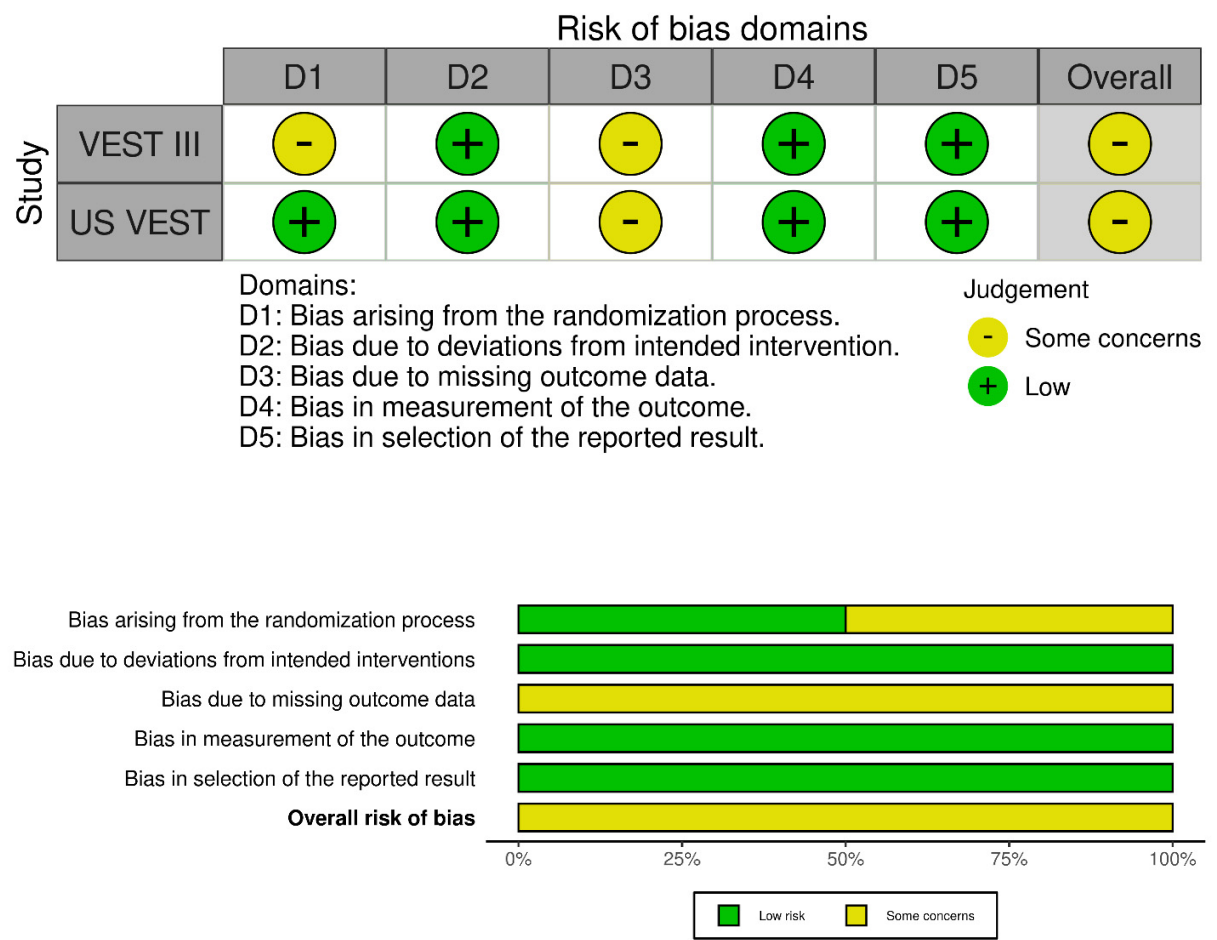
Supplemental Table 2. Study characteristics and patient data

Trial	VEST III	US VEST	Total
Year of publication	2022	2022	-
Country	Multicenter (Europe)	Multicenter (North America)	-
Study period	October 2015 May 2019	January 2018 February 2019	-
Follow-up (years)	2	1	1.5
Sample size	183	224	407
Mean age (years)	66.6±7.9	65.8±8.3	66.2±8.1
Female sex	29/183 (15.8)	46/224 (20.5)	75/407 (18.4)
Smoking habit*	118/183 (64.5)	123/224 (54.9)	241/407 (59.2)
Diabetes	54/183 (29.5)	114/224 (50.9)	168/407 (41.3)
Mean BMI	28.6±4.4	30.2±5.6	29.4±5
Hypertension	168/183 (91.8)	191/224 (85.3)	359/407 (88.2)
Hyperlipidemia	164/183 (89.6)	188/224 (83.9)	352/407 (86.5)
COPD	23/183 (12.6)	16/224 (7.1)	39 (9.6)
Vein varicosity			
• None	146/183 (79.8)	154/223 (69.1%)	300/406 (73.9)
• Mild/moderate	37/183 (20.2)	69/223 (30.9)	106/406 (26.1)
NYHA class ≥ III	59/183 (32.2)	26/215 (12.1%)	85/407 (21.3)
Prior MI	58/183 (31.7)	93/224 (41.5%)	151/407 (37.1)
Prior PCI	48/183 (26.2)	55/224 (24.6%)	103/407 (25.3)
Mean surgery time (min)	237.4±51.4	268.5±68.5	252.9±59.9
Mean XC time (min)	60.4±21.1	83±25.8	71.7±23.4
Mean CPB time (min)	97.7±26.8	110.5±35.1	104.1±30.9
SVG harvesting method			
• Open	118/183 (64.5)	41/224 (18.3)	159/407 (39.1)
• Endoscopic	57/183 (31.1)	169/224 (75.4)	226/407 (55.5)
• Other	8/183 (4.4)	14/224 (6.3)	22/407 (5.4)

Trial	VEST III	US VEST	Total
N° grafts per patient			
• 3	138/183 (75.4)	137/224 (61.2)	275/407 (67.6)
• 4	42/183 (22.9)	72/224 (32.1)	114/407 (28.0)
• 5	3/183 (1.7)	14/224 (6.3)	17/407 (4.2)
• 6	0/183 (0)	0/224 (0)	0/407 (0)
• 7	0/183 (0)	1/224 (0.4)	1/407 (0.2)
N° SVGs deployed	366 (100)	447 (100)	813 (100)
• VEST-SVGs	183/366 (50)	223/447 (50)	406/813 (50)
• Control	183/366 (50)	224/447 (50)	407/813 (50)
N° of patients with angiographic follow-up	128/183 (69.9)	203/224 (90.6)	331/407 (81.3)
N° SVGs analyzed	273/366 (74.6)	406/447 (90.8)	679/813 (83.5)
• VEST-SVGs	138/273 (50.5)	203/406 (50)	341/679 (50.2)
• Control	135/273 (49.5)	203/406 (50)	338/679 (49.8)
Graft occlusion	54/273 (19.8)	92/406 (22.7)	146 (21.5)
• VEST-SVGs	30/54 (55.5)	47/92 (51.1)	77 (52.7)
• Control	24/54 (45.5)	45/92 (48.9)	69 (47.3)
Repeat revascularization	11/183 (6.0)	9/224 (4.0)	20/407 (4.9)
• VEST-SVGs	4/11 (36.4)	4/9 (44.4)	8/20 (40.0)
• Control	7/11 (63.6)	5/9 (55.6)	12/20 (60.0)

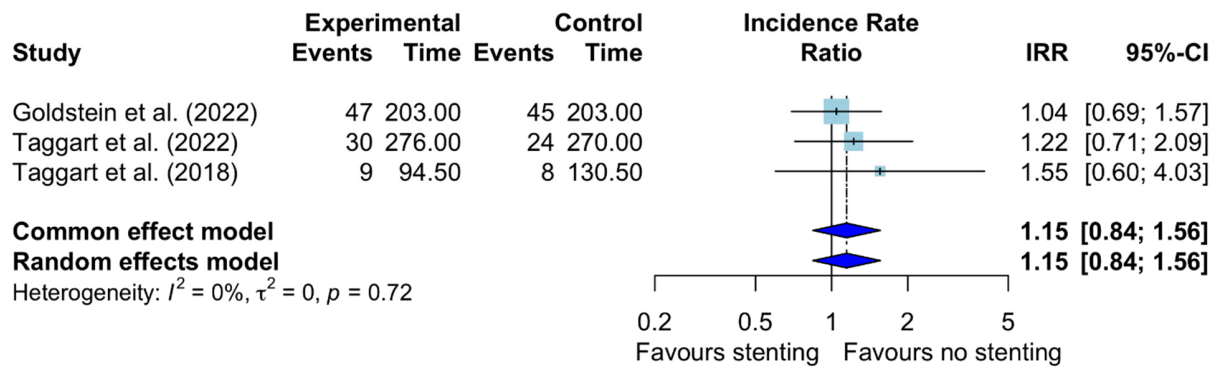
*Current and former. Numbers are presented as counts (percentages) or mean±standard deviation. BMI: body mass index; CPB: cardiopulmonary bypass; COPD: chronic obstructive pulmonary disease; MI: myocardial infarction; NYHA: New York Heart Association; PCI: percutaneous coronary intervention; SVG: saphenous vein graft; VEST: venous external support trial; XC: cross-clamp.

Supplemental Figure 1. Traffic-light (A) and summary plots (B) for RCT quality assessment using the revised Cochrane risk-of-bias tool 2



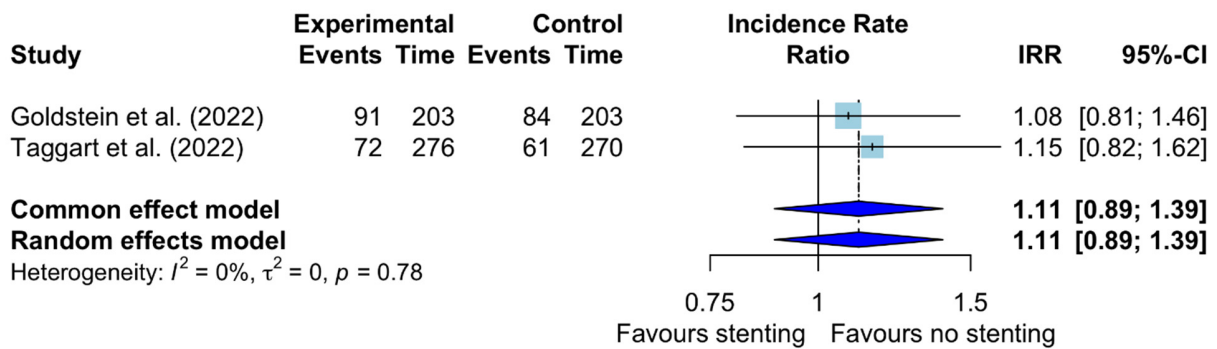
VEST: venous external support trial.

Supplemental Figure 2. Secondary analysis for the primary outcome of graft occlusion including VEST IV*



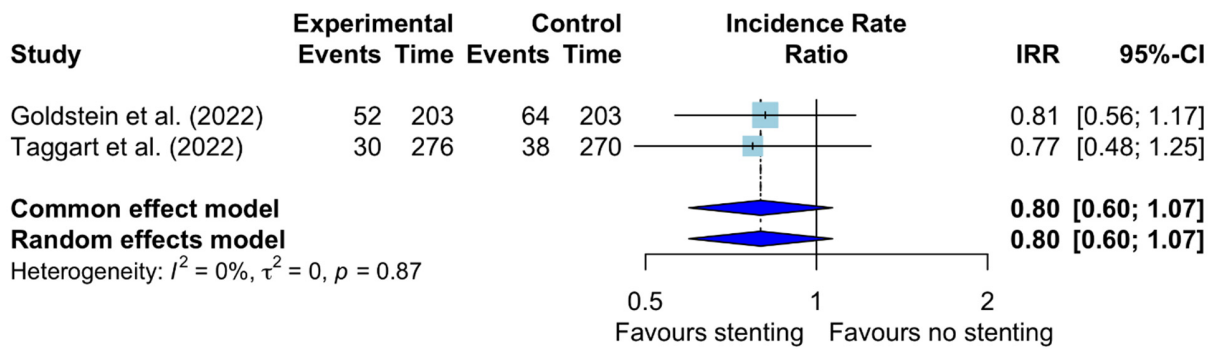
* Taggart et al. (2018). CI: confidence interval; IRR: incidence rate ratio; VEST: venous external support trial.

Supplemental Figure 3. Forest plot for Fitzgibbon patency class I



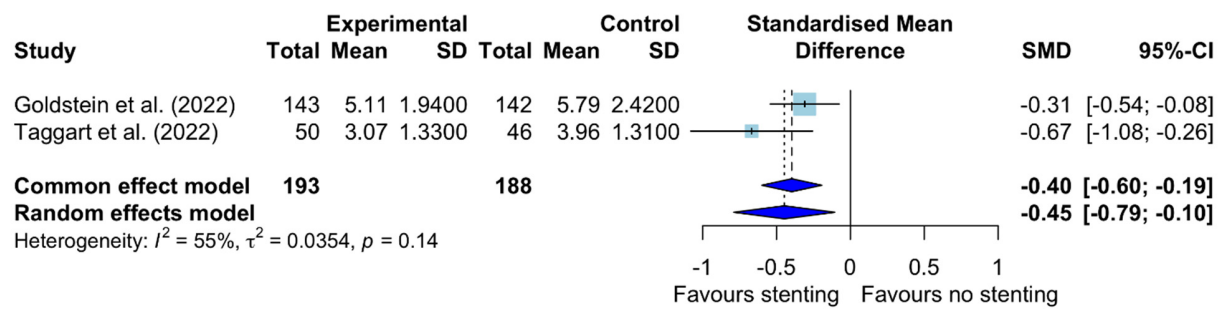
CI: confidence interval; IRR: incidence rate ratio.

Supplemental Figure 4. Forest plot for Fitzgibbon patency classes II-III



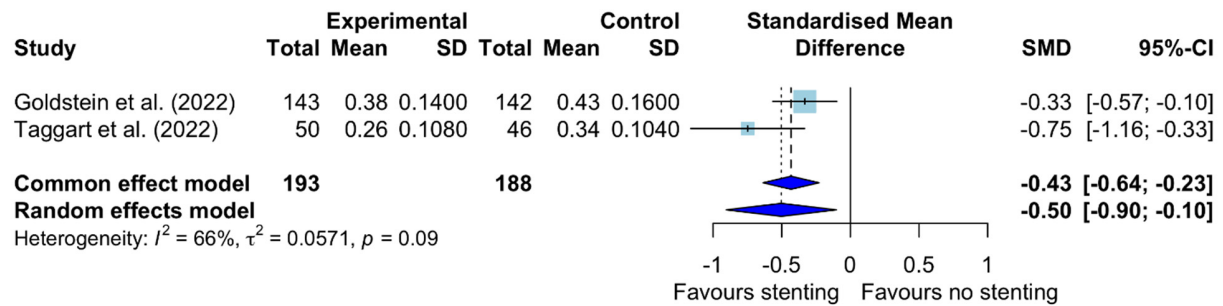
CI: confidence interval; IRR: incidence rate ratio.

Supplemental Figure 5. Forest plot for intimal hyperplasia area



CI: confidence interval; SD: standard deviation; SMD: standardized mean difference.

Supplemental Figure 6. Forest plot for intimal-medial thickness



CI: confidence interval; SD: standard deviation; SMD: standardized mean difference.