Study	Location	Joint studied	Groups	Sample size	Mean Age (years)	Male gender	ASA classification 3&4	ASA score	CCI	Success rate	Definition of success	Follow up time	HR for failed DAIR	Outcomes
Brimmo 2016	USA	Knee	Failed DAIR	57	68.1 ± 10.4	58%	-	-	-	91.3%	No subsequent surgery due to infection within 4 years	2-4 years	0.49(0.2-1.2)	Prior DAIR has no effect (*P*=0.1)
			No DAIR	693	66 ± 11.1	47%	-	-	-	82.5%				
Nodzo 2017	USA	Knee	Failed DAIR	45	66.8 ± 11.4	53.3%	-	2.4(0.5)	3.1±1.9	82.2% 93.3%	(1) the lack of clinical signs and symptoms at final post-reimplantation follow-up without the need for any further surgical intervention for infection (2) the lack of clinical signs and symptoms of infection at final post reimplantation follow-up with retention of components.	4.53 (2.45-6.61) years	-	Prior DAIR has no effect (*p*=0.957)
			No DAIR	132	65.8 ± 9.8	62.9%	-	2.4(0.5)	3.5±2	82.5% 96.2%				
Rajgopal 2018	India	Knee	Failed DAIR	88	69.5	48.9%	23	2.23	-	79.54%	(1) Successful eradication of the infection after the 2-stage procedure; (2) No recurrence of infection, with negative culture reports; (3) No need for chronic antibiotic suppression for more than 6 months; and (4) No requirement for further surgical procedures due to successful eradication of the infection.	5.3 (2.5-9.8) years	1.94(1.01-3.714)	Prior DAIR has a negative effect* (*p*=0.047)
			No DAIR	96	68.2	36.5%	36	2.32	-	85.41%				
Kim 2019	New Zealand	Knee	Failed DAIR	75	64.5 ± 9.6	61.3%	-	2.4(0.7)	3±1.9	72.0% 80.0%	(1) retention of components without antibiotics at follow-up (2) retention of components with or without antibiotics at follow-up	6.18(2.48-9.88) years	0.57(0.27-1.1)	Prior DAIR has no effect (*p*=0.222)
			No DAIR	63	67.3 ± 10.3	58.7%	-	2.7(0.8)	3.3±1.9	81.0% 84.1%				
Lizaur-Utrilla 2019	Spain	Knee	Failed DAIR	43	73.3 ± 6.2	34.9%	14	-	2.7±1.6	62.7%	Complete resolution of the infection following the initial surgical procedure, without the need for additional surgery, prolonged antibiotic treatment, or recurrence of the infection.	4.1 (3–7) years	-	Prior DAIR has a negative effect (*p*=0.046)
			No DAIR	49	72.5 ± 7.5	22.4%	12	-	2.2±1.2	81.6%				
Kavolus 2020	USA	Hip	Failed DAIR	49	57.6 ± 13.8	46.9%	-	-	-	51.1%	No additional surgery required due to infection after reimplantation.	2 years minimum	-	Prior DAIR has a negative effect (*p* <0.001)
			No DAIR	65	63.2 ± 13.2	53.8%	-	-	-	87.7%				
Huffaker 2022	USA	Knee	Failed DAIR	150	-	-	-	-	-	88.6%	No reoperation performed after the DAIR or 2-stage revision where an implant was exchanged for infectious reasons	10 years	1.11(0-58-2.12)	Prior DAIR has no effect (*p*=0.647)
			No DAIR	410	68.5 ± 8.9	49.3%	224	-	-	90%				

TABLE 1

*Based on Hazard Ratio

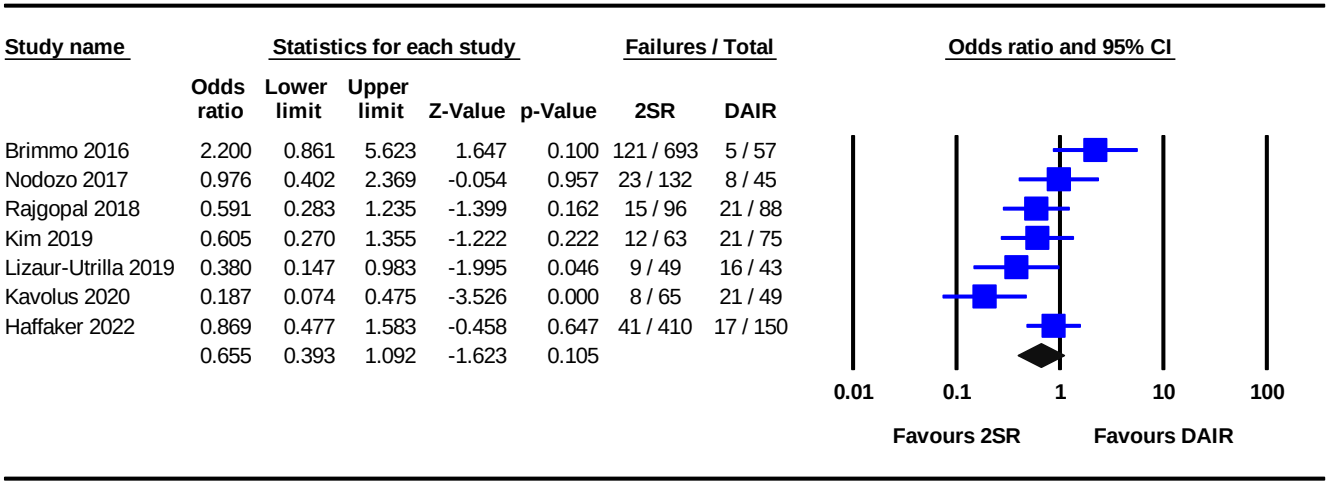

Fig. 1. Forest plot for 2SR failure rates. 2SR, 2 stage revision; CI, confidence interval

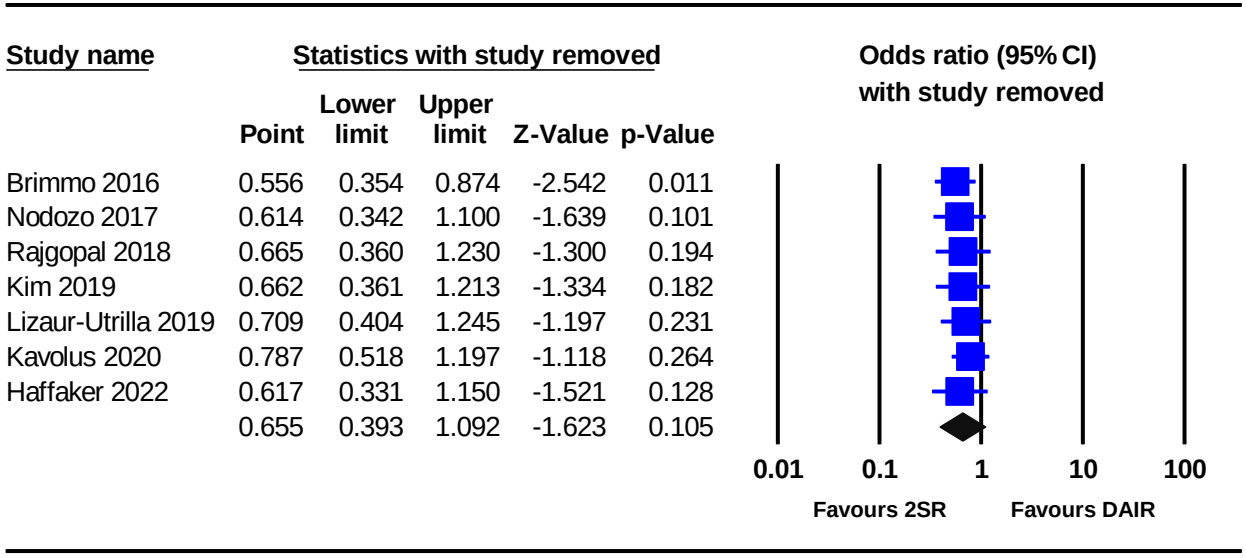

Figure 2 Sensvity analysis of outcomes