

Supplemental Data

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Search string for Embase and Pubmed

Legend for tables and figures:

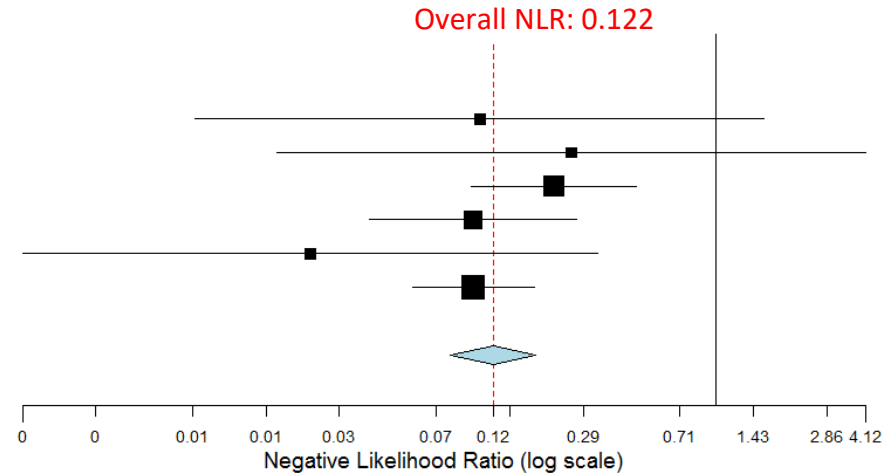
FDG-PET/CT: 18F-fluorodeoxyglucose positron emission tomography / computed tomography; DOR: diagnostic odds ratio; INTERMACS: interagency registry for mechanical circulatory support; MMB = medical microbiology; MV: metabolic volume (Cut-off: $\geq 9\text{cm}^3$) NLR: negative likelihood ratio; PLR: positive likelihood ratio.

In studies where there was insufficient data for assessment of true/false positives and negatives, these were left blank.

Figure 6. NLR and PLR Forest plots for FDG PET/CT for infection of LVAD pump/pocket

Negative Likelihood Ratio

Studies	Estimate (95% C.I.)	(FN * Di-)/(TN * Di+)
Akin 2018	0.108 (0.007, 1.582)	0/24
Bernhardt 2017	0.255 (0.016, 4.123)	24/120
Dell Aquila 2018	0.216 (0.099, 0.473)	135/624
De Vaugelade 2019	0.101 (0.038, 0.270)	0/80
Kim 2019	0.022 (0.001, 0.328)	0/276
Tam 2019	0.101 (0.057, 0.180)	0/40
Overall (I²=0 % , P=0.486)	0.122 (0.082, 0.183)	159/1164



Positive Likelihood Ratio

Studies	Estimate (95% C.I.)	(TP * Di-)/(FP * Di+)
Akin 2018	12.600 (0.858, 185.047)	24/0
Bernhardt 2017	37.500 (2.320, 606.016)	96/0
Dell Aquila 2018	6.094 (2.790, 13.309)	585/96
De Vaugelade 2019	5.238 (1.963, 13.980)	95/15
Kim 2019	25.458 (1.679, 385.928)	276/0
Tam 2019	1.736 (0.976, 3.085)	90/50
Overall (I²=64.3 % , P=0.016)	5.557 (2.352, 13.130)	1166/161

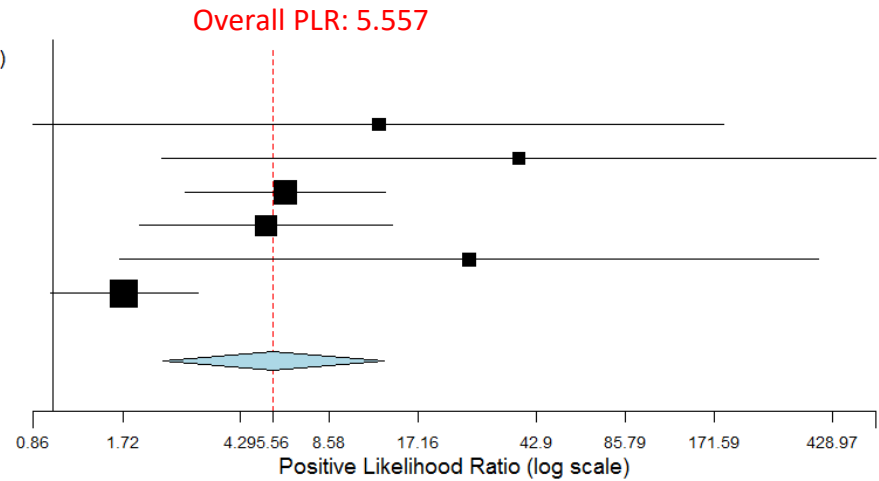
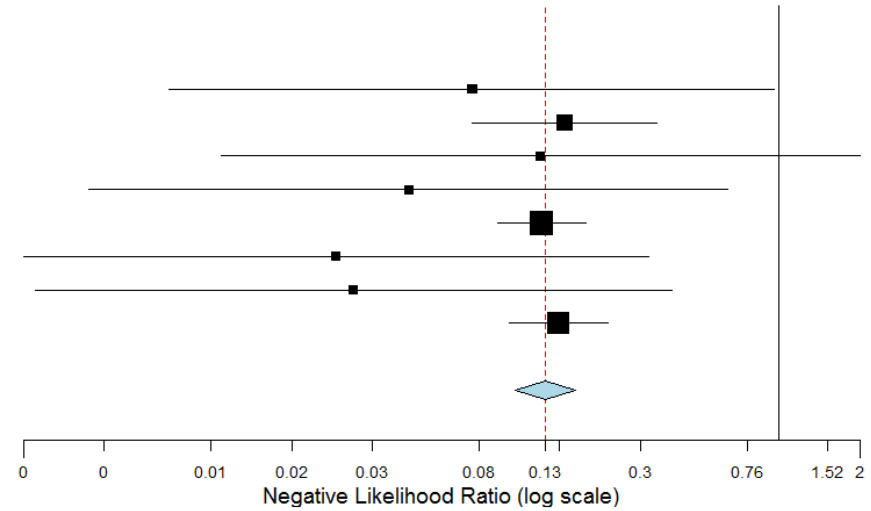


Figure 7. NLR and PLR Forest plots for FDG PET/CT for driveline infection

Negative Likelihood Ratio

Overall NLR: 0.133

Studies	Estimate (95% C.I.)	(FN * Di-)/(TN * Di+)
Akin 2018	0.071 (0.005, 0.961)	0/21
Avramovic 2017	0.158 (0.071, 0.349)	72/456
Bernhardt 2017	0.128 (0.008, 1.995)	18/198
Dell Aquila 2018	0.041 (0.003, 0.644)	25/900
De Vaugelade 2019	0.130 (0.089, 0.189)	0/44
Kanapinn 2019	0.022 (0.002, 0.326)	0/161
Kim 2019	0.026 (0.002, 0.396)	0/304
Tam 2019	0.150 (0.098, 0.229)	0/22
Overall (I²=0 % , P=0.718)	0.133 (0.103, 0.173)	115/2106



Positive Likelihood Ratio

Overall PLR: 3.934

Studies	Estimate (95% C.I.)	(TP * Di-)/(FP * Di+)
Akin 2018	7.500 (0.558, 100.873)	21/0
Avramovic 2017	4.200 (1.898, 9.295)	504/120
Bernhardt 2017	33.250 (2.140, 516.717)	180/0
Dell Aquila 2018	49.892 (3.203, 777.189)	875/0
De Vaugelade 2019	1.412 (0.966, 2.064)	143/99
Kanapinn 2019	15.667 (1.069, 229.513)	161/0
Kim 2019	33.150 (2.158, 509.121)	304/0
Tam 2019	1.327 (0.870, 2.024)	88/66
Overall (I²=72.98 % , P< 0.001)	3.934 (1.875, 8.255)	2276/285

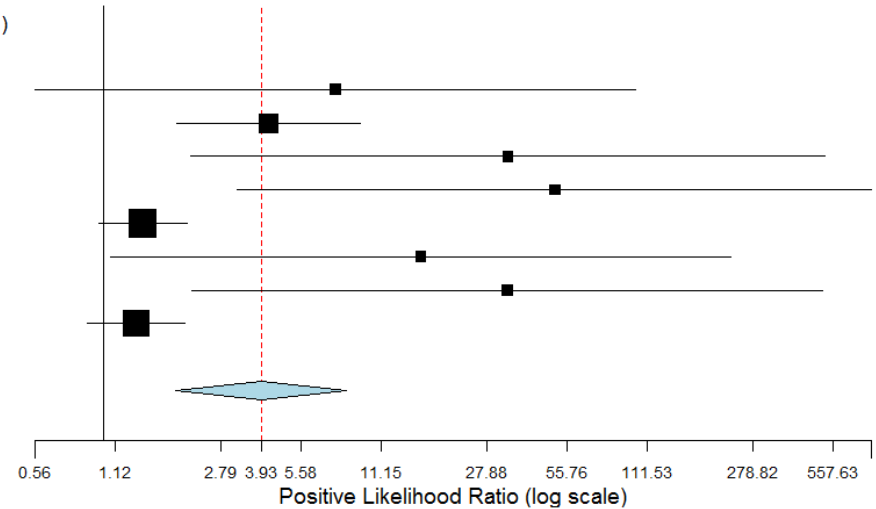


Figure 8. Forest plot Diagnostic Odds Ratio ¹⁸F-FDG PET/CT for LVAD pump/pocket and driveline infection

Studies	Estimate	(95% C.I.)	(TP * TN) / (FP * FN)
Akin et al 2018	85.000	(1.319, 5478.065)	16/0
Avramovic et al 2017	26.600	(5.589, 126.596)	399/15
Bernhardt et al 2017	156.600	(6.877, 3566.114)	182/0
Dell'Aquila et al - 2 2018	22.500	(5.542, 91.353)	540/24
De Vaugelade et al 2019	40.000	(1.749, 914.787)	40/1
Kanapinn et al 2019	705.000	(12.846, 38691.742)	161/0
Kim et al 2019	855.000	(15.635, 46756.257)	196/0
Tam et al 2019	8.846	(0.366, 213.798)	22/0
Overall (I²=0 % , P=0.445)	38.433	(16.535, 89.335)	1556/40

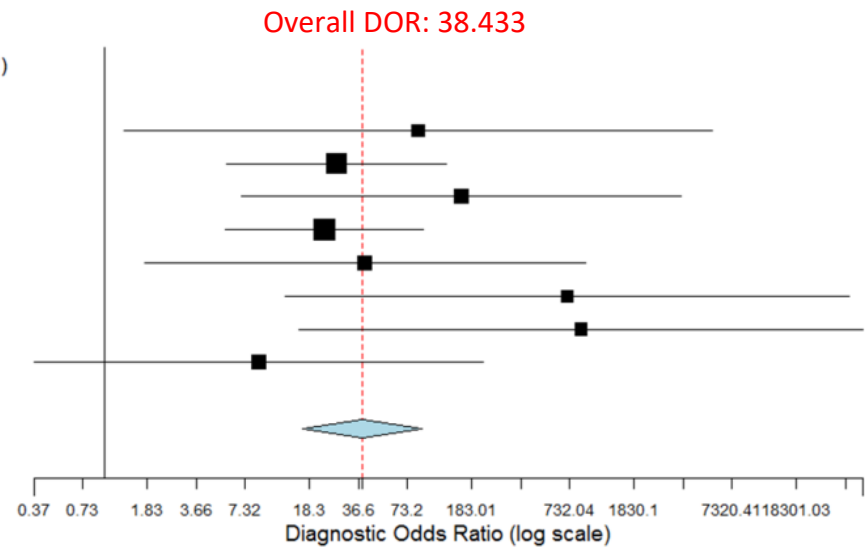


Figure 9. Forest plot Diagnostic Odds Ratio ¹⁸F-FDG PET/CT for driveline infection

Studies	Estimate	(95% C.I.)	(TP * TN) / (FP * FN)
Akin 2018	105.000	(1.705, 6464.654)	21/0
Avramovic 2017	26.600	(5.589, 126.596)	399/15
Bernhardt 2017	259.000	(9.659, 6945.214)	180/0
Dell Aquila 2018	1207.000	(47.233, 30843.682)	875/0
De Vaugelade 2019	10.895	(0.518, 229.010)	44/0
Kanapinn 2019	705.000	(12.846, 38691.742)	161/0
Kim 2019	1287.000	(24.184, 68490.014)	304/0
Tam 2019	8.846	(0.366, 213.798)	22/0
Overall (I²=38.96 % , P=0.119)	92.457	(22.711, 376.395)	2006/15

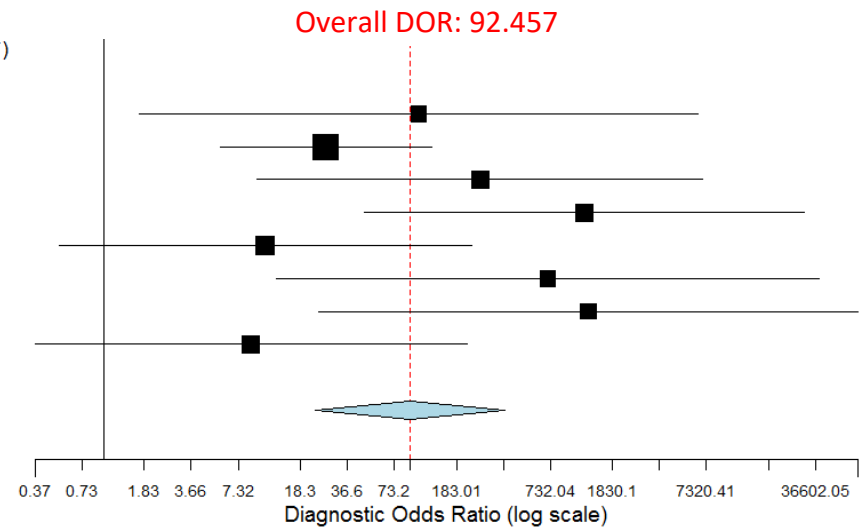
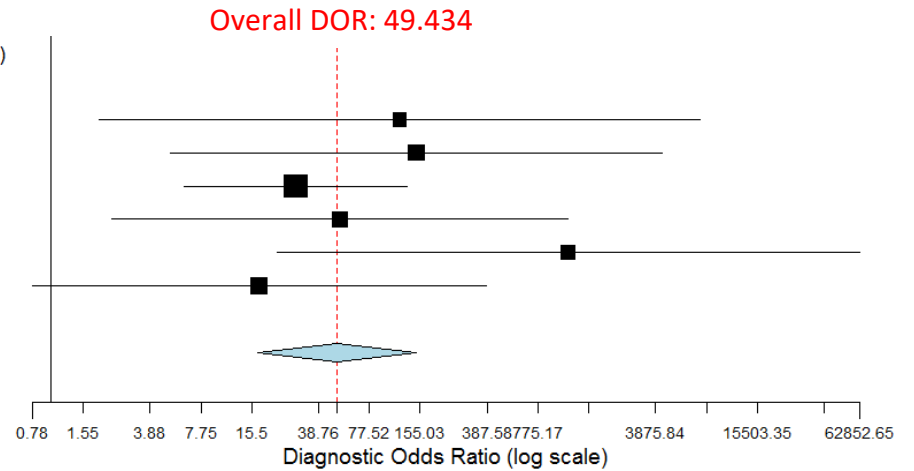


Figure 10 . Forest plot Diagnostic Odds Ratio ¹⁸F-FDG PET/CT for infection of LVAD pump/pocket

Studies	Estimate (95% C.I.)	(TP * TN) / (FP * FN)
Akin 2018	117.000 (1.939, 7060.232)	24/0
Bernhardt 2017	147.000 (5.133, 4209.848)	96/0
Dell Aquila 2018	28.167 (6.152, 128.968)	507/18
De Vaugelade 2019	51.857 (2.298, 1170.117)	80/0
Kim 2019	1175.000 (21.966, 62852.646)	276/0
Tam 2019	17.182 (0.775, 380.840)	40/0
Overall (I²=0 % , P=0.552)	49.434 (16.716, 146.187)	1023/18



Search Strings:

Embase: ('left ventricular assist device'/exp OR 'lvad' OR 'left ventricular assist device' OR 'ventricular assist device'/exp OR 'ventricular assist device' OR 'vad' OR 'driveline infection') AND ('infection'/exp OR 'infection' OR 'bacterial endocarditis'/exp OR 'infective endocarditis') AND ('positron emission tomography'/exp OR 'positron emission tomography') NOT ('case report'/exp OR 'case report')

Pubmed: (Left ventricular assist device[tiab] OR LVAD[tiab] OR Ventricular Assist Device[tiab] OR VAD[tiab] OR Driveline infection[tiab]) And (infection[tiab] OR endocarditis[tiab] or Endocarditis[mesh]) AND (Positron emission tomography[tiab] OR PET) NOT (case report[tiab])