Supplementary Information

Type of Article: Original Research

Title: Efficacy of Immunosuppression Therapy in Primary IgA Nephropathy in Adults: A Systematic Review and Network Meta-Analysis of Randomized Controlled Trials

Running Title: Immunosuppression Therapy in IgA Nephropathy

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Table S1. Detailed Search Strategy and Formulas

Database	Search Formula	Result
Cochrane Library	IgA nephropathy AND immunosuppressive AND (randomized OR controlled)	138
Web of Science	TS=(IgA nephropathy AND immunosuppressive AND (randomized OR controlled))	210
Embase	('IgA nephropathy'/exp OR 'IgA nephropathy') AND ('immunosuppressive agent'/exp OR 'immunosuppressive agent') AND ('randomized controlled trial'/exp OR 'randomized controlled trial')	1,710
PubMed	((IgA nephropathy) AND (immunosuppressive)) AND ((randomized) OR (controlled))	246

Table S2. Network Meta-Analysis of Different Treatments for Increasing eGFR

TACI 160mg															
1.3 [-15.5; 18.0]	**PSL**														
2.0 [-10.2; 14.2]	0.7 [-16.0; 17.5]	**TACI 240mg**													
4.1 [-12.7; 20.8]	2.8 [-13.2; 18.8]	2.1 [-14.7; 18.8]	**SBL 4mg/kg**												
5.8 [-11.0; 22.5]	4.5 [-11.5; 20.5]	3.8 [-13.0; 20.5]	1.7 [-9.6; 13.0]	**SBL 8mg/kg**											
7.0 [-9.8; 23.7]	5.7 [-10.3; 21.7]	5.0 [-11.8; 21.7]	2.9 [-8.4; 14.2]	1.2 [-10.1; 12.5]	**SBL 2mg/kg**										
7.6 [-9.1; 24.4]	6.4 [-9.6; 22.4]	5.6 [-11.1; 22.4]	3.6 [-12.5; 19.6]	1.9 [-14.2; 17.9]	0.7 [-15.4; 16.7]	**Atacicept 150mg**									
7.8 [-12.6; 28.1]	6.5 [-5.1; 18.1]	5.8 [-14.6; 26.1]	3.7 [-16.0; 23.4]	2.0 [-17.8; 21.8]	0.8 [-19.0; 20.6]	0.1 [-19.6; 19.9]	**mPSL-PSL**								
8.3 [-9.4; 25.9]	7.0 [-9.9; 23.9]	6.3 [-11.4; 23.9]	4.2 [-12.8; 21.2]	2.5 [-14.5; 19.5]	1.3 [-15.7; 18.3]	0.6 [-16.3; 17.6]	0.5 [-20.0; 21.0]	**Cemdisiran 600mg**							
8.3 [-8.5; 25.0]	7.0 [-9.0; 23.0]	6.3 [-10.5; 23.0]	4.2 [-11.8; 20.2]	2.5 [-13.5; 18.5]	1.3 [-14.7; 17.3]	0.6 [-10.7; 12.0]	0.5 [-19.2; 20.2]	-0.0 [-17.0; 17.0]	**Atacicept 75mg**						
9.3 [-7.6; 26.2]	8.1 [-8.1; 24.2]	7.3 [-9.6; 24.2]	5.3 [-10.9; 21.4]	3.6 [-12.6; 19.7]	2.4 [-13.8; 18.5]	1.7 [-14.5; 17.8]	1.6 [-18.3; 21.4]	1.1 [-16.0; 18.1]	1.1 [-15.1; 17.2]	**HCQ**					
12.4 [-4.4; 29.1]	11.1 [-4.9; 27.1]	10.4 [-6.4; 27.1]	8.3 [-7.7; 24.3]	6.6 [-9.4; 22.6]	5.4 [-10.6; 21.4]	4.7 [-11.3; 20.8]	4.6 [-15.1; 24.3]	4.1 [-12.9; 21.1]	4.1 [-11.9; 20.1]	3.0 [-13.1; 19.2]	**Tacrolimus**				
11.7 [-0.7; 24.0]	10.4 [-0.9; 21.7]	9.7 [-2.7; 22.0]	7.6 [-3.7; 18.9]	5.9 [-5.4; 17.2]	4.7 [-6.6; 16.0]	4.0 [-7.3; 15.4]	3.9 [-12.3; 20.1]	3.4 [-9.2; 16.0]	3.4 [-7.9; 14.7]	2.3 [-9.2; 13.9]	-0.7 [-12.0; 10.6]	**placebo**			
19.0 [-3.8; 41.7]	17.7 [-4.5; 39.9]	17.0 [-5.8; 39.7]	14.9 [-7.3; 37.1]	13.2 [-9.0; 35.4]	12.0 [-10.2; 34.2]	11.3 [-10.9; 33.5]	11.2 [-13.8; 36.2]	10.7 [-12.2; 33.6]	10.7 [-11.5; 32.9]	9.6 [-12.7; 31.9]	6.6 [-15.6; 28.8]	7.3 [-11.8; 26.4]	**Rituximab**		
22.7 [5.8; 39.6]	21.4 [5.3; 37.5]	20.7 [3.8; 37.6]	18.6 [2.4; 34.8]	16.9 [0.7; 33.1]	15.7 [-0.5; 31.9]	15.0 [-1.1; 31.2]	14.9 [-5.0; 34.8]	14.4 [-2.7; 31.5]	14.4 [-1.8; 30.6]	13.3 [-2.9; 29.6]	10.3 [-5.9; 26.5]	11.0 [-0.5; 22.5]	3.7 [-11.5; 18.9]	**MMF**	
27.0 [7.8; 46.1]	25.7 [7.2; 44.2]	25.0 [5.8; 44.1]	22.9 [4.4; 41.4]	21.2 [2.7; 39.7]	20.0 [1.5; 38.5]	19.3 [0.8; 37.8]	19.2 [-2.6; 41.0]	18.7 [-0.6; 38.0]	18.7 [0.2; 37.2]	17.6 [-1.0; 36.2]	14.6 [-3.9; 33.1]	15.3 [0.7; 29.9]	8.0 [-4.3; 20.3]	4.3 [-4.7; 13.3]	**SC**

TACI: Telitacicept; PSL: Prednisolone; SBL: Sibeprenlimab; mPSL_PSL: Methylprednisolone followed by prednisolone; HCQ: Hydroxychloroquine; MMF: Mycophenolate Mofetil; SC: Supportive Care

Table S3. Network Meta-Analysis of Different Treatments and the Risk of Adverse Events

Placebo									
1.26 [0.11; 14.05]	**Cemdisiran 600mg**								
0.96 [0.65; 1.40]	0.76 [0.07; 8.67]	**Iptacopan 200mg**							
0.88 [0.32; 2.40]	0.69 [0.05; 9.45]	0.92 [0.31; 2.69]	**Sibeprenlimab 2mg/kg**						
0.59 [0.21; 1.69]	0.47 [0.03; 6.51]	0.62 [0.20; 1.89]	0.68 [0.24; 1.95]	**Sibeprenlimab 4mg/kg**					
0.55 [0.19; 1.63]	0.44 [0.03; 6.15]	0.58 [0.18; 1.82]	0.63 [0.21; 1.89]	0.93 [0.30; 2.87]	**Sibeprenlimab 8mg/kg**				
0.46 [0.04; 5.77]	0.37 [0.01; 11.98]	0.48 [0.04; 6.21]	0.53 [0.03; 7.98]	0.78 [0.05; 11.92]	0.83 [0.05; 12.98]	**Telitacicept 240mg**			
0.40 [0.03; 4.96]	0.32 [0.01; 10.33]	0.42 [0.03; 5.34]	0.46 [0.03; 6.87]	0.67 [0.04; 10.26]	0.72 [0.05; 11.17]	0.87 [0.05; 15.28]	**Telitacicept 160mg**		
0.32 [0.19; 0.54]	0.25 [0.02; 2.96]	0.33 [0.17; 0.64]	0.36 [0.12; 1.13]	0.53 [0.16; 1.72]	0.57 [0.17; 1.91]	0.69 [0.05; 9.09]	0.79 [0.06; 10.41]	**Nefecon 16mg**	
0.01 [0.00; 0.13]	0.01 [0.00; 0.29]	0.01 [0.00; 0.14]	0.01 [0.00; 0.18]	0.02 [0.00; 0.27]	0.02 [0.00; 0.30]	0.03 [0.00; 0.86]	0.03 [0.00; 0.99]	0.04 [0.00; 0.44]	**Tacrolimus**

Table S4. Subgroup Analysis of the Network Meta-Analysis on Immunosuppressive Therapy in Studies with a Follow-Up of at Least One Year for eGFR

PSL								
2.8 [1.9; 3.7]	**SBL 4.0mg/kg**							
4.5 [3.6; 5.4]	1.7 [0.9; 2.5]	**SBL 8.0mg/kg**						
5.7 [4.8; 6.6]	2.9 [2.1; 3.7]	1.2 [0.4; 2.0]	**SBL 2.0mg/kg**					
6.5 [4.1; 8.9]	3.7 [1.1; 6.3]	2.0 [-0.6; 4.6]	0.8 [-1.8; 3.4]	**mPSL-PSL**				
10.4 [10.0; 10.8]	7.6 [6.8; 8.4]	5.9 [5.1; 6.7]	4.7 [3.9; 5.5]	3.9 [1.4; 6.4]	**placebo**			
21.2 [15.9; 26.5]	18.4 [13.1; 23.7]	16.7 [11.4; 22.0]	15.5 [10.2; 20.8]	14.7 [8.9; 20.5]	10.8 [5.5; 16.1]	**Rituximab**		
21.4 [19.2; 23.6]	18.6 [16.3; 20.9]	16.9 [14.5; 19.3]	15.7 [13.3; 18.1]	14.9 [11.6; 18.2]	11.0 [8.8; 13.2]	0.2 [-4.6; 5.0]	**MMF**	
29.2 [26.9; 31.5]	26.4 [24.0; 28.8]	24.7 [22.3; 27.1]	23.5 [21.1; 25.9]	22.7 [19.4; 26.0]	18.8 [16.5; 21.1]	8.0 [3.2; 12.8]	7.8 [7.3; 8.3]	**SC**

PSL: Prednisolone; SBL: Sibeprenlimab; mPSL_PSL: Methylprednisolone followed by prednisolone; SC: Supportive Care

Figure S1. PRISMA 2000 Flow Diagram of Screening Process

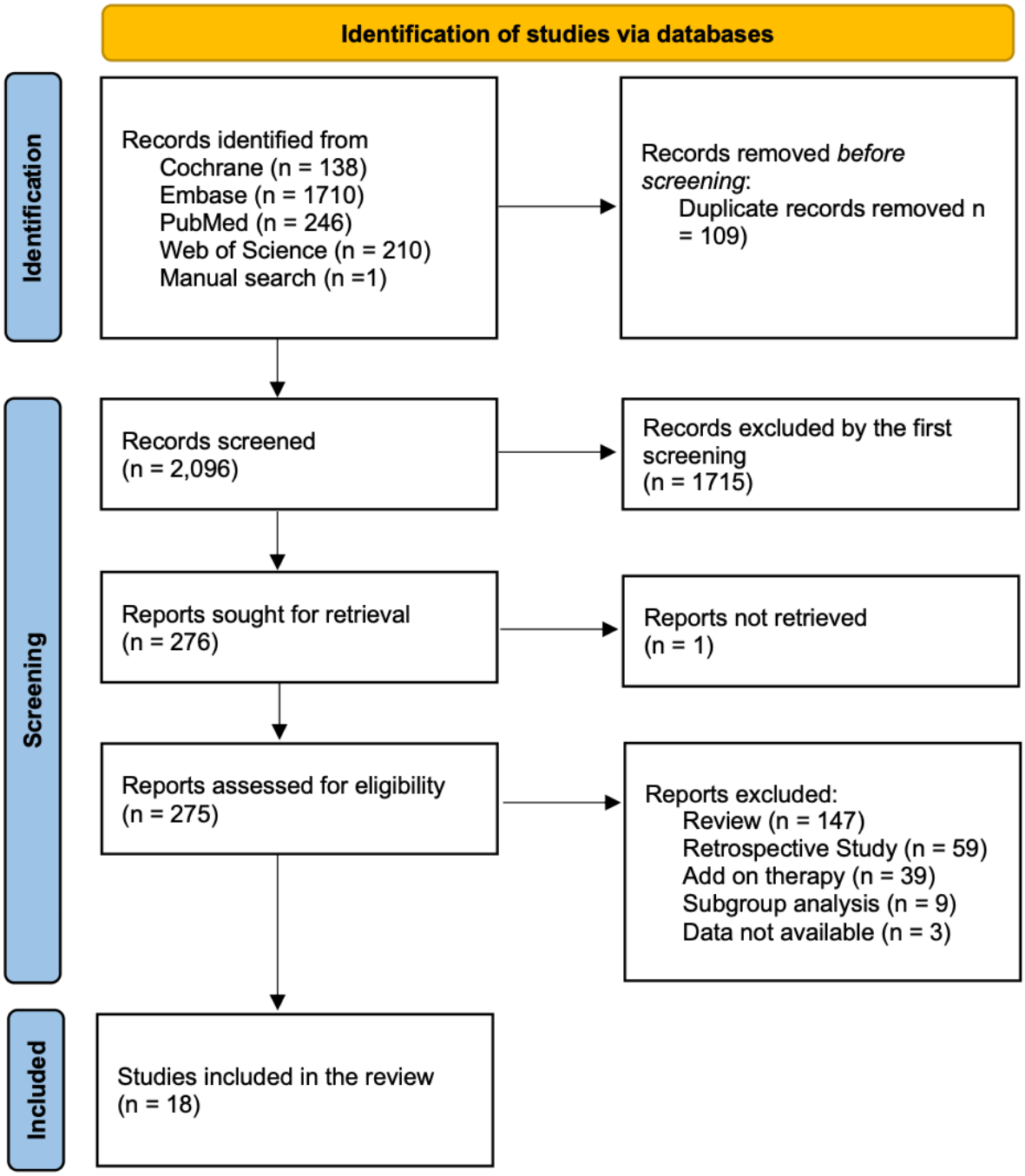


Figure S2. Ranking of Immunosuppressive Treatment Efficacy in Reducing Urine Protein-to-Creatinine Ratio

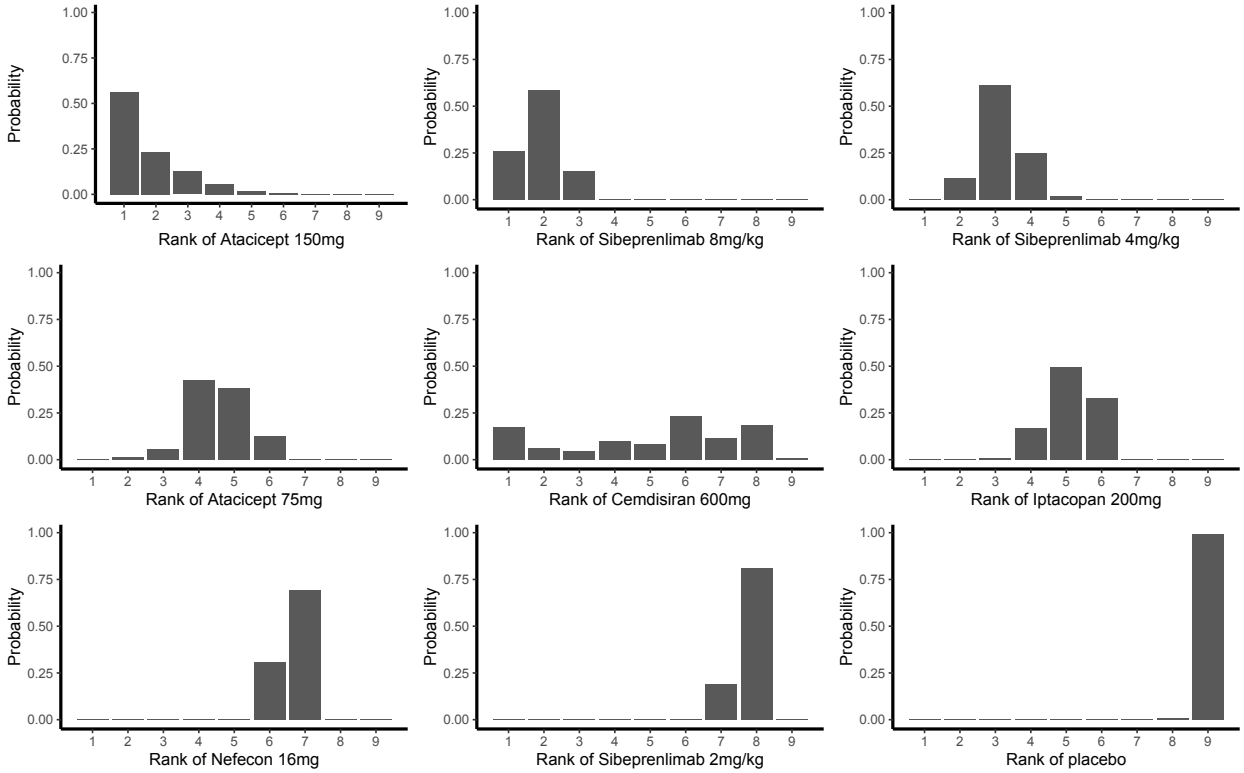


Figure S3. Ranking of Immunosuppressive Treatment Efficacy in Reducing Proteinuria

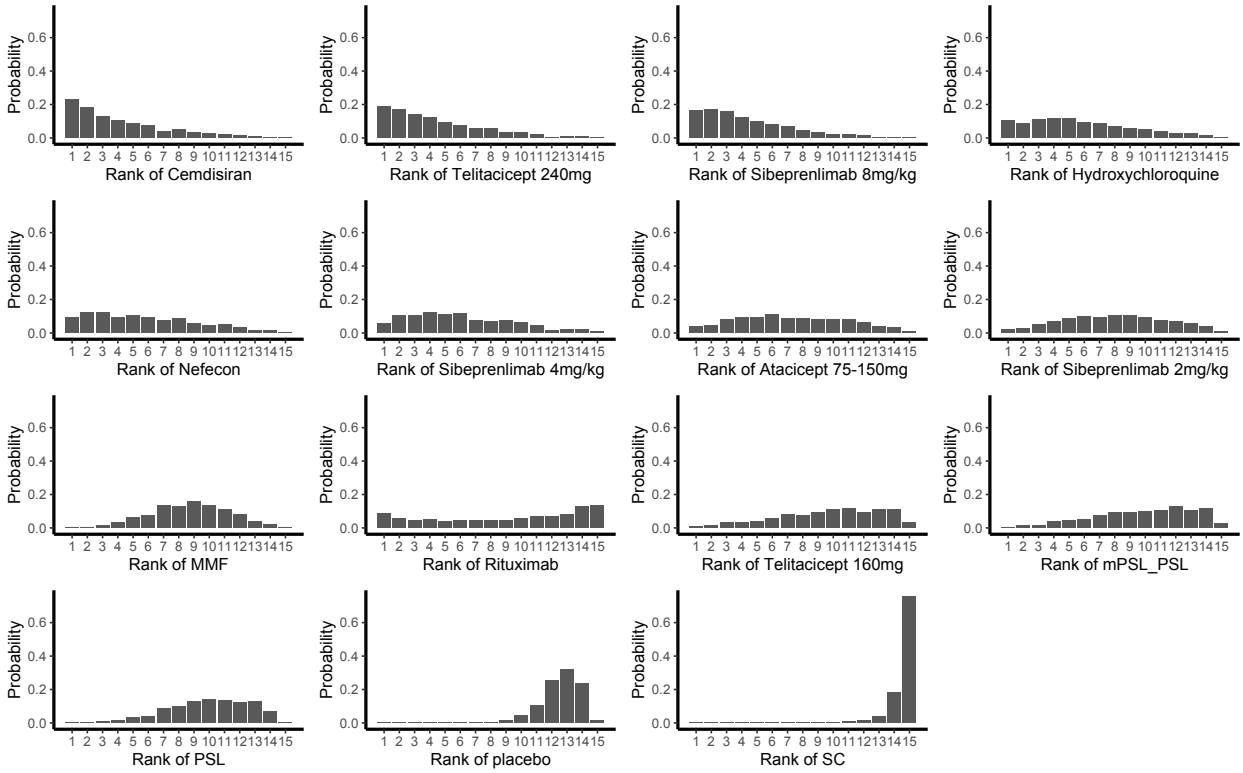


Figure S4. Ranking of Immunosuppressive Treatment Efficacy in Improving Estimated Glomerular Filtration Rate

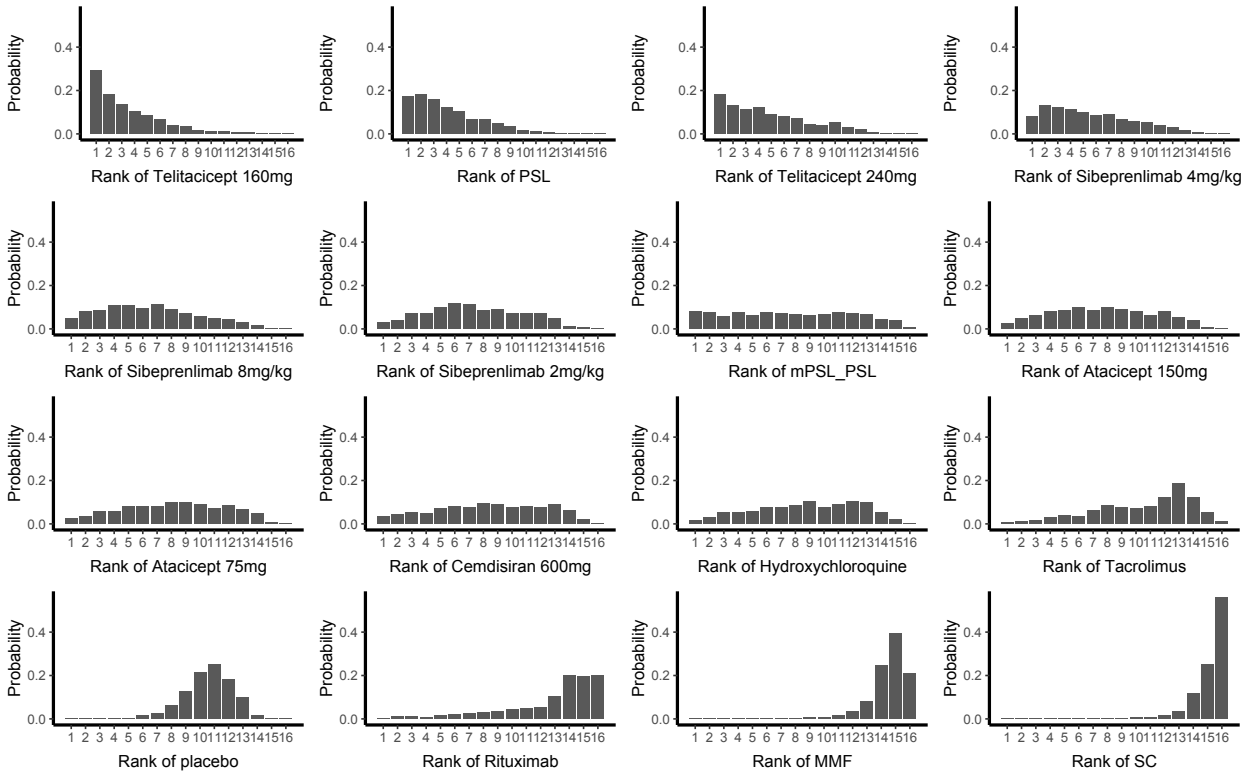


Figure S5. Ranking of Treatment Safety (Risk of Adverse Events)

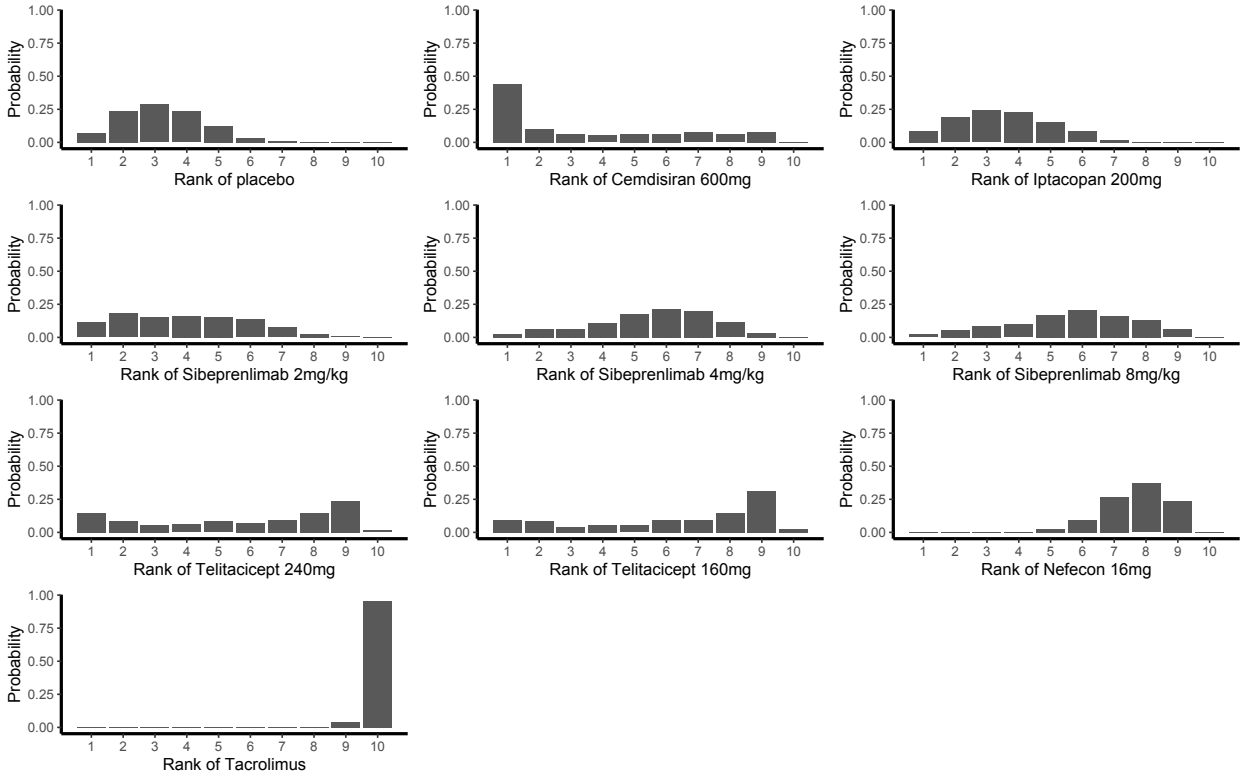


Figure S6. Network Graph in the Sensitivity Analysis of Immunosuppressive Therapy in Studies with a Follow-Up of at Least One Year for eGFR

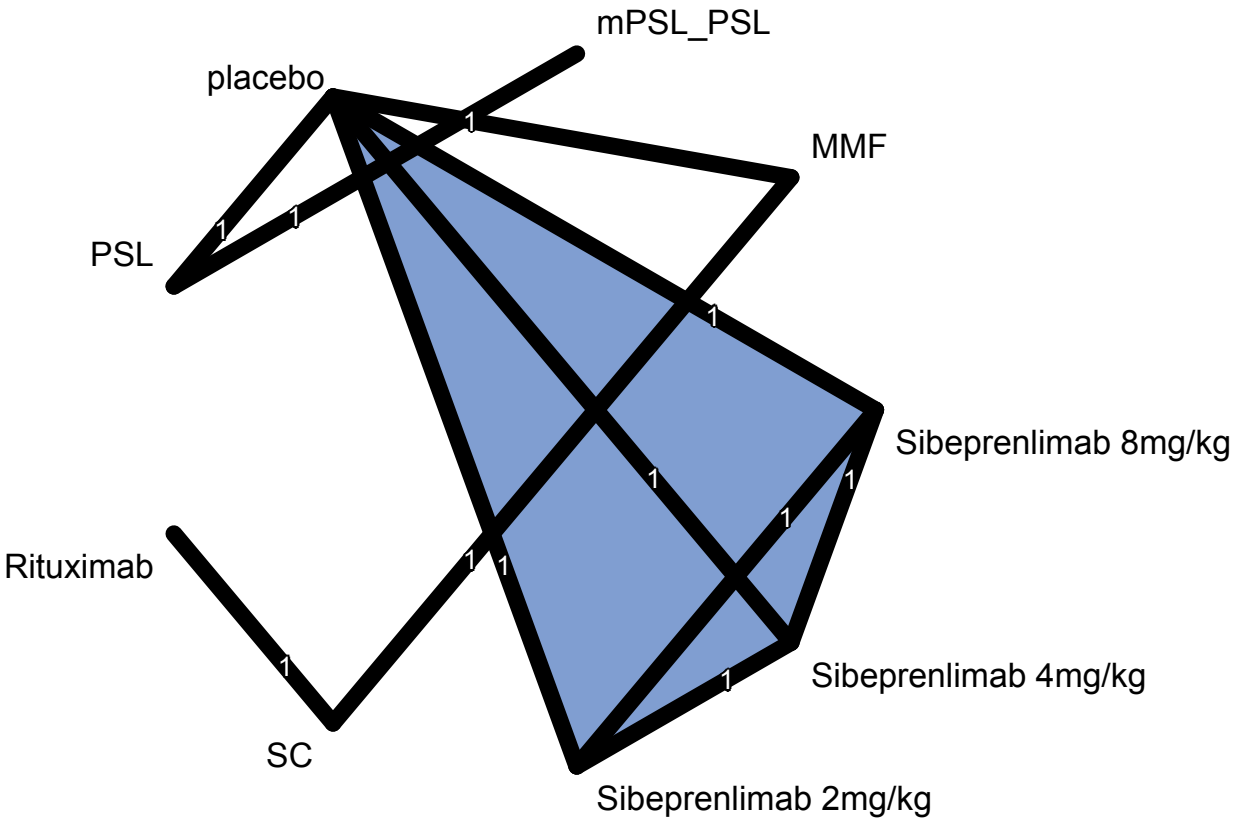


Figure S7. Direct Comparisons in the Sensitivity Analysis of Immunosuppressive Therapy in Studies with a Follow-Up of at Least One Year for eGFR

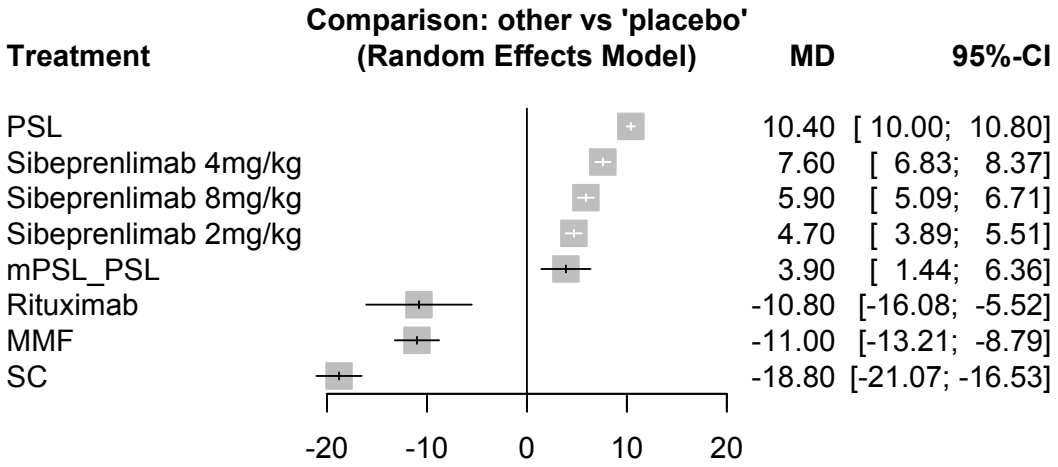


Figure S8. Subgroup Ranking of Immunosuppressive Treatment Efficacy in Improving eGFR

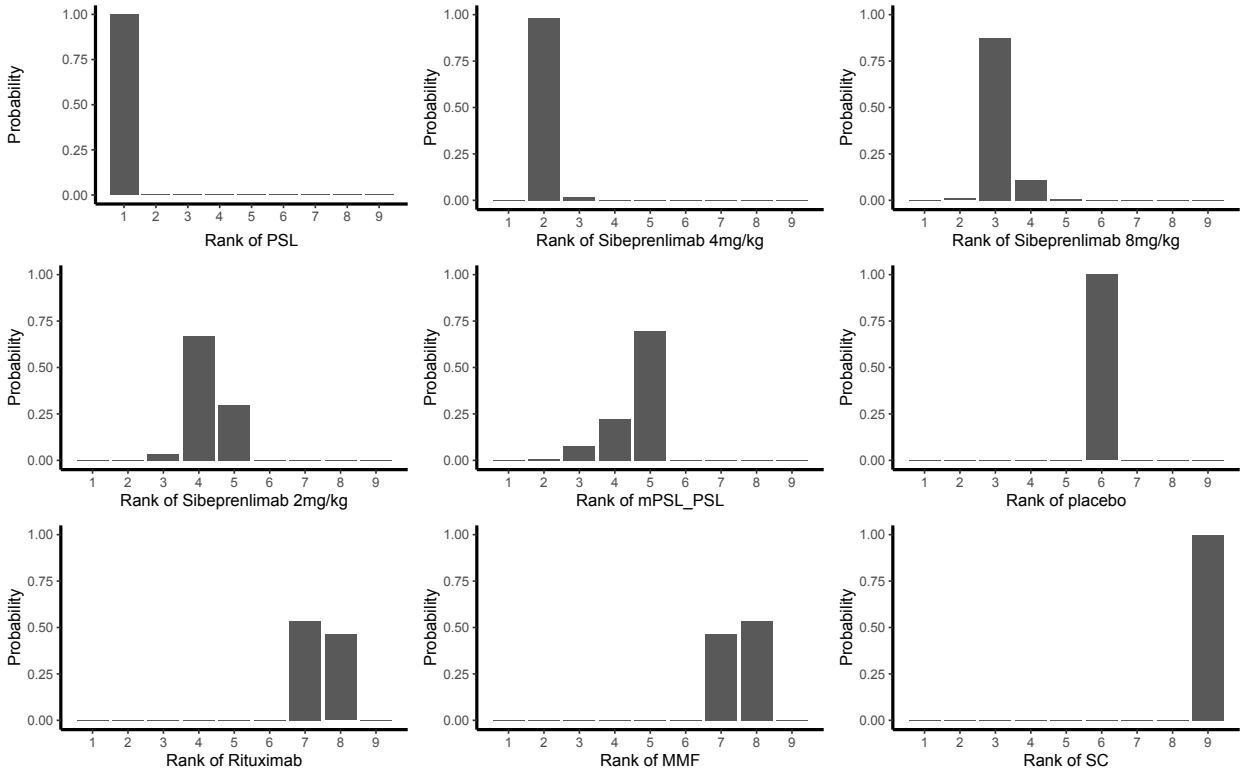


Figure S9. Summary of Risk of Bias Assessment

