

Supplementary materials

Supplementary 1. Subgroup analysis of peak AST in SNMP in animal studies

Subgroup	No. of studies	Subtotal SMD(95%CI)	I ² value	P value
WIT				
NR	2	-0.61(-1.40,0.18)	0.0%	0.133
30-60min	2	-0.68(-3.28,1.92)	86.3%	0.610
Donor type				
HBD	1	-0.46(-1.72,0.80)	--	0.474
DCD	3	-0.67(-2.04,0.70)	72.9%	0.339

Supplementary 2. Subgroup analysis of animal survival in NMP in animal studies

Subgroup	No. of studies	Subtotal RR(95%CI)	I ² value	P value
WIT				
NR	1	1.000(0.538,1.859)	--	1.000
0min	2	1.581(0.450,5.555)	71.6%	0.475
0-30min	1	1.182(0.763,1.831)	--	0.455
30-60min	1	7.857(0.551,112.089)	--	0.128
Donor type				
HBD	3	1.225(0.670,2.240)	47.2%	0.510
DCD	2	2.539(0.136,47.501)	79.6%	0.533

Supplementary 3. Subgroup analysis of animal survival in HMP in animal studies

Subgroup	No. of studies	Subtotal RR(95%CI)	I ² value	P value
WIT				
NR	2	0.388(0.128,1.178)	0.0%	0.095
0-30min	1	10.50(0.698,157.908)	--	0.086

Supplementary 4. Subgroup analysis of EAD in NMP in human studies

Subgroup	No. of studies	Subtotal RR(95%CI)	I ² value	P value
Donor type				
DCD	1	0.677(0.203,2.194)	--	0.505
DCD/DBD	2	0.788(0.143,4.354)	90.9%	0.784

Supplementary 5. Subgroup analysis of graft survival in HMP in human studies

Subgroup	No. of studies	Subtotal RR(95%CI)	I ² value	P value
WIT				
NR	2	1.003(0.856,1.176)	0.0%	0.968
0-30min	1	1.743(1.157,2.265)	--	0.008
30-60min	2	1.111(0.792,1.558)	86.3%	0.542
Donor type				
DCD	2	1.288 (0.716,2.314)	84.8%	0.398
ECD	1	1.008(0.786,1.292)	--	0.949

DCD/DBD	2	1.111(0.792,1.558)	86.3%	0.542
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Supplementary 6. Meta- analysis of hospital stay, ICU stay, peak AST and INR in human studies

Subgroup	No. of studies	Subtotal SMD(95%CI)	I ² value	P value
Hospital stay				
NMP	3	0.338 (-0.286 to 0.963)	60.9%	0.288
HMP	5	-0.088 (-0.662 to 0.485)	80.6%	0.762
ICU stay				
NMP	3	0.563(-0.330 to 1.457)	80.0%	0.217
HMP	3	0.307 (-0.004 to 0.619)	0.0%	0.053
Peak AST				
NMP	3	-4.616(-10.364 to 1.133)	99.3%	0.116
HMP	3	-1.235(-3.333 to 0.863)	97.0%	0.249
INR				
NMP	4	0.083(-0.133 to 0.299)	0.0%	0.453
HMP	3	-0.594(-2.683 to 1.495)	97.3%	0.577

Supplementary 7. Publication bias in all studies using Begg's test

Subgroup	No. of studies	P-Q	Std. Dev. of Score	P value
Peak AST(animal)				
NMP	2	-1	1.00	0.317
SNMP	4	0	2.94	1.000
HMP	2	1	1.00	0.317
HA				
NMP	2	-1	1.00	0.317
HMP	2	-1	1.00	0.317
Animal survival				
NMP	5	3	4.08	0.463
SNMP	4	4	2.94	0.174
HMP	3	3	1.91	0.117
Biliary complication				
NMP	4	2	2.94	0.497
HMP	5	-2	4.08	0.624
EAD				
NMP	3	1	1.91	0.602
HMP	4	0	2.94	1.000
PNF				
NMP	1	--	--	--
HMP	2	-1	1.00	0.317
Graft survival				
NMP	2	1	1.00	0.317
HMP	5	8	4.08	0.050
Hospital stay				
NMP	3	1	1.91	0.602

HMP	5	-4	4.08	0.327
ICU stay				
NMP	3	3	1.91	0.117
HMP	3	3	1.91	0.117
Peak AST(human)				
NMP	3	-3	1.91	0.117
HMP	3	-1	1.91	0.602
INR				
NMP	4	4	2.94	0.174
HMP	3	-1	1.91	0.602
