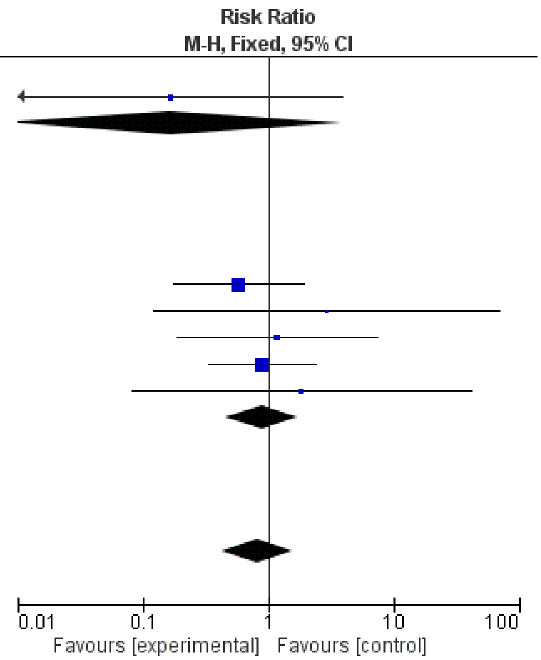
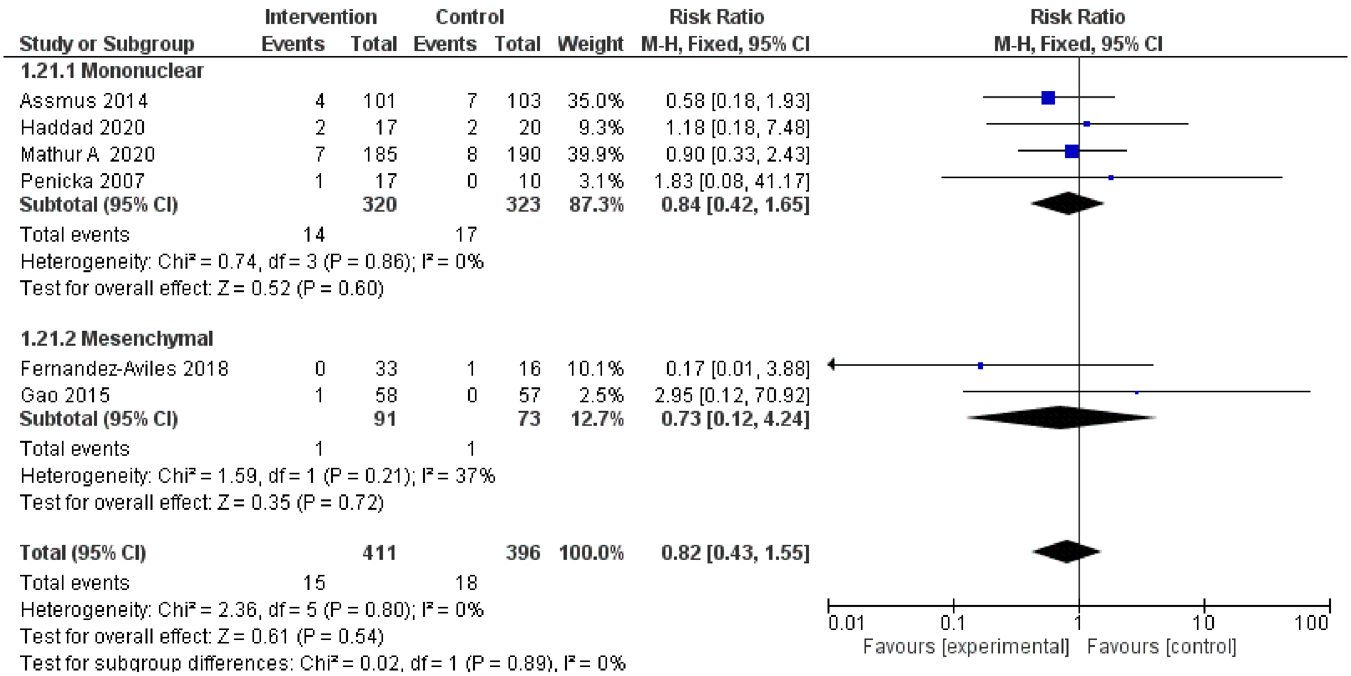
Study or Subgroup	Intervention Events	Intervention Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI
1.20.2 time of assessment upto 12 months						
Fernandez-Aviles 2018	0	33	1	16	10.1%	0.17 [0.01, 3.88]
Subtotal (95% CI)		**33**		**16**	**10.1%**	**0.17 [0.01, 3.88]**
Total events	0		1			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.12 (P = 0.26)						
1.20.3 time of assessment more than 12 months						
Assmus 2014	4	101	7	103	35.0%	0.58 [0.18, 1.93]
Gao 2015	1	58	0	57	2.5%	2.95 [0.12, 70.92]
Haddad 2020	2	17	2	20	9.3%	1.18 [0.18, 7.48]
Mathur A 2020	7	185	8	190	39.9%	0.90 [0.33, 2.43]
Penicka 2007	1	17	0	10	3.1%	1.83 [0.08, 41.17]
Subtotal (95% CI)		**378**		**380**	**89.9%**	**0.90 [0.46, 1.73]**
Total events	15		17			
Heterogeneity: Chi² = 1.32, df = 4 (P = 0.86); I² = 0%						
Test for overall effect: Z = 0.33 (P = 0.74)						
Total (95% CI)		**411**		**396**	**100.0%**	**0.82 [0.43, 1.55]**
Total events	15		18			
Heterogeneity: Chi² = 2.36, df = 5 (P = 0.80); I² = 0%						
Test for overall effect: Z = 0.61 (P = 0.54)						
Test for subgroup differences: Chi² = 1.05, df = 1 (P = 0.31), I² = 4.7%						

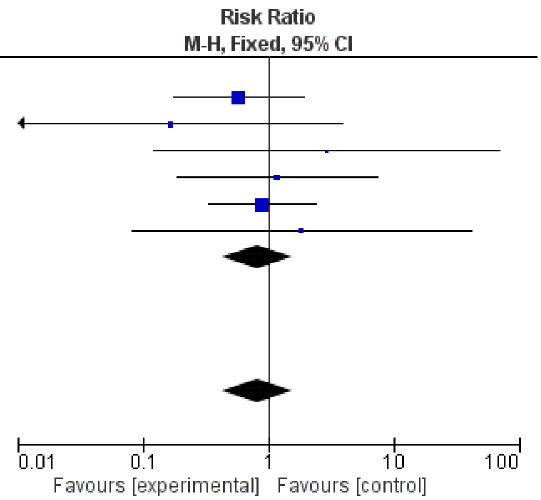


Supplementary Fig. 5A. This forest plot shows the cancer incidence between stem cell therapy recipients and control participants based on time of assessment of outcome.



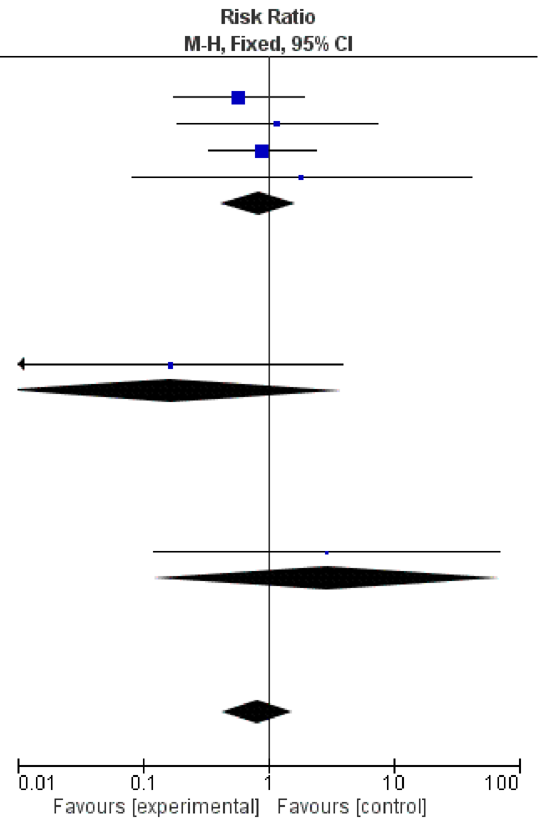
Supplementary Fig. 5B. This forest plot shows the cancer incidence between stem cell therapy recipients and control participants based on the type of cells administered.

Study or Subgroup	Intervention Events	Intervention Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI
1.22.1 Intracoronary						
Assmus 2014	4	101	7	103	35.0%	0.58 [0.18, 1.93]
Fernandez-Aviles 2018	0	33	1	16	10.1%	0.17 [0.01, 3.88]
Gao 2015	1	58	0	57	2.5%	2.95 [0.12, 70.92]
Haddad 2020	2	17	2	20	9.3%	1.18 [0.18, 7.48]
Mathur A 2020	7	185	8	190	39.9%	0.90 [0.33, 2.43]
Penicka 2007	1	17	0	10	3.1%	1.83 [0.08, 41.17]
Subtotal (95% CI)		**411**		**396**	**100.0%**	**0.82 [0.43, 1.55]**
Total events	15		18			
Heterogeneity: Chi² = 2.36, df = 5 (P = 0.80); I² = 0%						
Test for overall effect: Z = 0.61 (P = 0.54)						
Total (95% CI)		**411**		**396**	**100.0%**	**0.82 [0.43, 1.55]**
Total events	15		18			
Heterogeneity: Chi² = 2.36, df = 5 (P = 0.80); I² = 0%						
Test for overall effect: Z = 0.61 (P = 0.54)						
Test for subgroup differences: Not applicable						



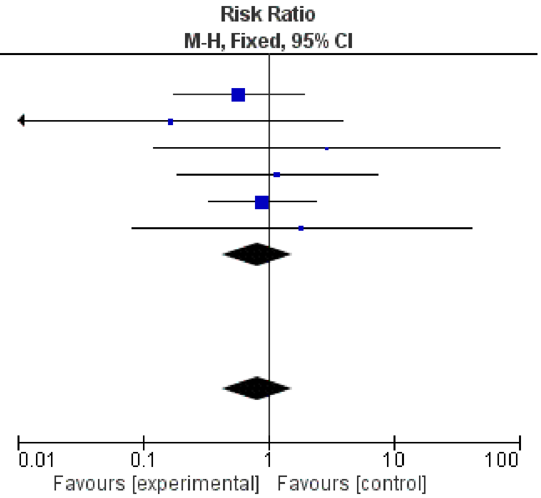
Supplementary Fig. 5C. This forest plot shows the cancer incidence between stem cell therapy recipients and control participants based on the route of administration.

Study or Subgroup	Intervention Events	Intervention Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI
1.23.1 Autologous						
Assmus 2014	4	101	7	103	35.0%	0.58 [0.18, 1.93]
Haddad 2020	2	17	2	20	9.3%	1.18 [0.18, 7.48]
Mathur A 2020	7	185	8	190	39.9%	0.90 [0.33, 2.43]
Penicka 2007	1	17	0	10	3.1%	1.83 [0.08, 41.17]
Subtotal (95% CI)		**320**		**323**	**87.3%**	**0.84 [0.42, 1.65]**
Total events	14		17			
Heterogeneity: Chi² = 0.74, df = 3 (P = 0.86); I² = 0%						
Test for overall effect: Z = 0.52 (P = 0.60)						
1.23.2 Allogeneic						
Fernandez-Aviles 2018	0	33	1	16	10.1%	0.17 [0.01, 3.88]
Subtotal (95% CI)		**33**		**16**	**10.1%**	**0.17 [0.01, 3.88]**
Total events	0		1			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.12 (P = 0.26)						
1.23.3 Not mentioned						
Gao 2015	1	58	0	57	2.5%	2.95 [0.12, 70.92]
Subtotal (95% CI)		**58**		**57**	**2.5%**	**2.95 [0.12, 70.92]**
Total events	1		0			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.67 (P = 0.51)						
Total (95% CI)		**411**		**396**	**100.0%**	**0.82 [0.43, 1.55]**
Total events	15		18			
Heterogeneity: Chi² = 2.36, df = 5 (P = 0.80); I² = 0%						
Test for overall effect: Z = 0.61 (P = 0.54)						
Test for subgroup differences: Chi² = 1.61, df = 2 (P = 0.45), I² = 0%						



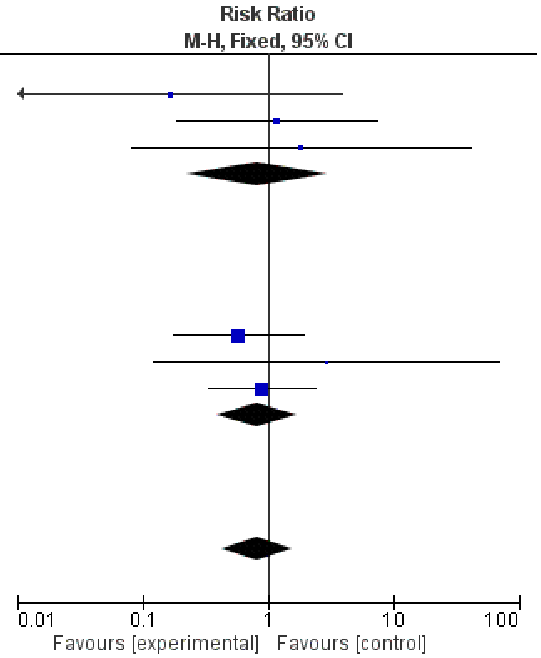
Supplementary Fig. 5D. This forest plot shows the cancer incidence between stem cell therapy recipients and control participants based on autologous vs allogeneic stem cells.

Study or Subgroup	Intervention Events	Intervention Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI
1.24.2 Administration 1 - 21 days						
Assmus 2014	4	101	7	103	35.0%	0.58 [0.18, 1.93]
Fernandez-Aviles 2018	0	33	1	16	10.1%	0.17 [0.01, 3.88]
Gao 2015	1	58	0	57	2.5%	2.95 [0.12, 70.92]
Haddad 2020	2	17	2	20	9.3%	1.18 [0.18, 7.48]
Mathur A 2020	7	185	8	190	39.9%	0.90 [0.33, 2.43]
Penicka 2007	1	17	0	10	3.1%	1.83 [0.08, 41.17]
Subtotal (95% CI)		**411**		**396**	**100.0%**	**0.82 [0.43, 1.55]**
Total events	15		18			
Heterogeneity: Chi² = 2.36, df = 5 (P = 0.80); I² = 0%						
Test for overall effect: Z = 0.61 (P = 0.54)						
Total (95% CI)		**411**		**396**	**100.0%**	**0.82 [0.43, 1.55]**
Total events	15		18			
Heterogeneity: Chi² = 2.36, df = 5 (P = 0.80); I² = 0%						
Test for overall effect: Z = 0.61 (P = 0.54)						
Test for subgroup differences: Not applicable						



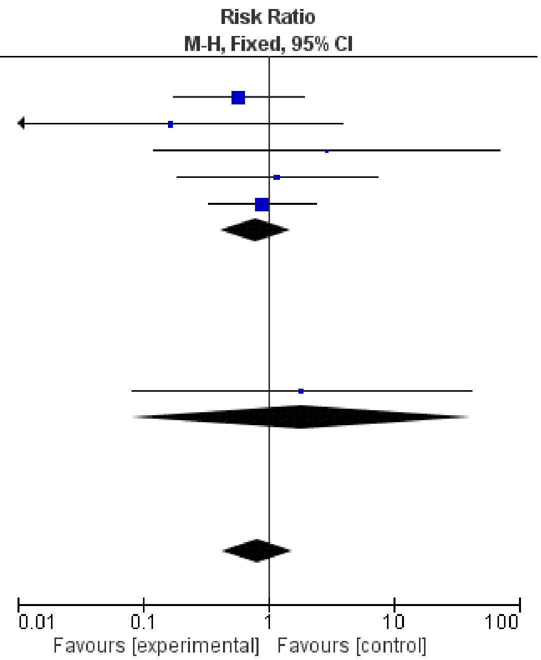
Supplementary Fig. 5E. This forest plot shows the cancer incidence between stem cell therapy recipients and control participants based on the administration time.

Study or Subgroup	Intervention Events	Intervention Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI
1.46.1 < 100						
Fernandez-Aviles 2018	0	33	1	16	10.1%	0.17 [0.01, 3.88]
Haddad 2020	2	17	2	20	9.3%	1.18 [0.18, 7.48]
Penicka 2007	1	17	0	10	3.1%	1.83 [0.08, 41.17]
Subtotal (95% CI)		**67**		**46**	**22.5%**	**0.81 [0.22, 2.97]**
Total events	3		3			
Heterogeneity: Chi² = 1.39, df = 2 (P = 0.50); I² = 0%						
Test for overall effect: Z = 0.31 (P = 0.76)						
1.46.2 ≥ 100						
Assmus 2014	4	101	7	103	35.0%	0.58 [0.18, 1.93]
Gao 2015	1	58	0	57	2.5%	2.95 [0.12, 70.92]
Mathur A 2020	7	185	8	190	39.9%	0.90 [0.33, 2.43]
Subtotal (95% CI)		**344**		**350**	**77.5%**	**0.82 [0.40, 1.71]**
Total events	12		15			
Heterogeneity: Chi² = 0.97, df = 2 (P = 0.62); I² = 0%						
Test for overall effect: Z = 0.52 (P = 0.60)						
Total (95% CI)		**411**		**396**	**100.0%**	**0.82 [0.43, 1.55]**
Total events	15		18			
Heterogeneity: Chi² = 2.36, df = 5 (P = 0.80); I² = 0%						
Test for overall effect: Z = 0.61 (P = 0.54)						
Test for subgroup differences: Chi² = 0.00, df = 1 (P = 0.99), I² = 0%						



Supplementary Fig. 5F. This forest plot shows the cancer incidence between stem cell therapy recipients and control participants based on the sample size.

Study or Subgroup	Intervention Events	Intervention Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI
1.54.1 < 500 million						
Assmus 2014	4	101	7	103	35.0%	0.58 [0.18, 1.93]
Fernandez-Aviles 2018	0	33	1	16	10.1%	0.17 [0.01, 3.88]
Gao 2015	1	58	0	57	2.5%	2.95 [0.12, 70.92]
Haddad 2020	2	17	2	20	9.3%	1.18 [0.18, 7.48]
Mathur A 2020	7	185	8	190	39.9%	0.90 [0.33, 2.43]
Subtotal (95% CI)		**394**		**386**	**96.9%**	**0.79 [0.41, 1.51]**
Total events	14		18			
Heterogeneity: Chi² = 2.09, df = 4 (P = 0.72); I² = 0%						
Test for overall effect: Z = 0.71 (P = 0.48)						
1.54.2 > 500 million						
Penicka 2007	1	17	0	10	3.1%	1.83 [0.08, 41.17]
Subtotal (95% CI)		**17**		**10**	**3.1%**	**1.83 [0.08, 41.17]**
Total events	1		0			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.38 (P = 0.70)						
Total (95% CI)		**411**		**396**	**100.0%**	**0.82 [0.43, 1.55]**
Total events	15		18			
Heterogeneity: Chi² = 2.36, df = 5 (P = 0.80); I² = 0%						
Test for overall effect: Z = 0.61 (P = 0.54)						
Test for subgroup differences: Chi² = 0.27, df = 1 (P = 0.60), I² = 0%						



Supplementary Fig. 5G. This forest plot shows the cancer incidence between stem cell therapy recipients and control participants based on dose administered.