Supplemental information

Appendices: Risk of bias assessment protocol

SELECTION BIAS

Q1 Are the inclusion/exclusion criteria the same for all study participants (or groups)?
Yes/No/Unclear

Q2 Is the recruitment strategy the same for all study participants (or groups)?
Yes/No/Unclear

Q3 If a comparison or control group is used, is the selection of this group appropriate after considering feasibility and ethical considerations? **Yes/No/Unclear/ Not applicable**

PERFORMANCE BIAS

Q4 Does the execution of the study account for any important variations from the study protocol? (If no study protocol was available, please answer "UNCLEAR")
Yes/No/Unclear

Q5 Were the investigators blinded to the outcome (relapse, infections, GvHD)?
Yes/No/Unclear

DETECTION BIAS

Q6 Were clinicians or assessors recording clinical outcomes (relapse, infections, GvHD) blinded to patients' blood and graft composition? **Yes/No/Unclear/ Not applicable**

Q7 (a) Were consistent outcome measures (i.e. defined criteria for aGVHD) used across all study participants? **Yes/No/Unclear/ Not applicable**

Q7 (b) Were consistent outcome measures (i.e. defined criteria for relapse) used across all study participants? **Yes/No/Unclear/ Not applicable**

Q7 (c) Were consistent outcome measures (i.e. defined criteria for infections) used across all study participants? **Yes/No/Unclear/ Not applicable**

Q7 (d) Were baseline characteristics adequately reported for all study participants (or groups)?
Yes/No/Unclear

ATTRITION BIAS

Q8 Was the length of follow-up the same for all study participants (or groups), or if not, was duration of follow-up adjusted by statistical methods (e.g. survival analysis)?
Yes/No/Unclear

REPORTING BIAS

Q9 (a) Does the study report aGVHD as an outcome?
Yes/No

Q9 (b) Does the study report relapse as an outcome?

Yes/No

Q9 (c) Does the study report infections as an outcome?

Yes/No

Q9 (d) Does the study report overall survival?

Yes/No

Q9 (e) Does the study report disease-free survival?

Yes/No

CONFOUNDING

Q10 (a) Was stratification of participants for γδ T-cells analysis appropriately balanced (e.g. using median or mean value)? [if an arbitrary threshold for stratification without justification was used, please answer NO] **Yes/No/Unclear/ Not applicable**

Q10 (b) If a control group was used, were groups appropriately matched by baseline characteristics? **Yes/No/Unclear/ Not applicable**

Q11 (a) Were multiple outcomes treated as competing risks?

Yes/No/Unclear

Q11 (b) Was multivariate analysis performed to take potential confounding factors into account?

Yes/No/Unclear

OVERALL ASSESSMENT

Q12 (a) Was the study free from any conflicts of interest (including commercial funding)?

Yes/No/Unclear

Q12 (b) Do you consider the results of the study to be believable taking any study limitations into consideration?

Yes/No/Unclear

Table S1: Risk of bias and confounding evaluation

Study	Q1 (S)	Q2 (S)	Q3 (S)	Q4 (P)	Q5 (P)	Q6 (D)	Q7a (D)	Q7b (D)	Q7c (D)	Q7d (D)	Q8 (A)	Q9a (R)	Q9b (R)	Q9c (R)	Q9d (R)	Q9e (R)	Q10a (C)	Q10b (C)	Q11a (C)	Q11b (C)	Q12a (O)	Q12b (O)
Lamb 1996	+	+	.	+	-	+	+	+	.	-	+	+	+	.	+	+	+	.	?	-	+	+
Lamb 1999	+	+	.	+	-	+	.	+	.	+	+	.	+	.	.	+	+	.	+	-	+	+
Godder 2007	+	+	.	+	-	+	+	+	+	+	+	+	+	+	+	+	+	.	+	+	+	+
Perko 2015	+	+	.	+	-	+	+	+	.	+	+	+	+	.	+	+	+	.	+	+	+	+
Ho 2017	+	?	.	+	-	+	.	+	+	+	+	.	+	+	+	.	?	.	+	+	+	?
Park 2018	+	+	.	+	-	+	.	+	+	?	+	.	+	+	+	.	+	.	+	-	+	+
Liu 2018	+	+	.	+	-	+	.	.	+	?	+	.	.	+	.	.	+	.	?	-	+	+
Bian 2018	+	+	.	+	-	+	+	.	+	+	+	+	.	+	.	.	+	.	-	-	+	+
Pabst 2007	+	?	.	+	-	+	+	.	.	-	+	+	.	.	.	.	+	.	+	+	+	+
Xuan 2018	+	+	.	+	-	+	+	.	.	+	+	+	.	.	.	.	+	.	-	+	+	+
Gaballa 2019	+	+	.	+	-	+	+	+	+	+	+	+	+	.	.	+	.	+	+	+	+	+

S = selection bias, P = performance bias, D = detection bias, A = attrition bias, R = reporting bias, C = risk of confounding, O = overall assessment of bias.
(+) low risk of bias or confounding, (-) high risk of bias or confounding, (?) unclear risk of bias or confounding, (·) not applicable to study.

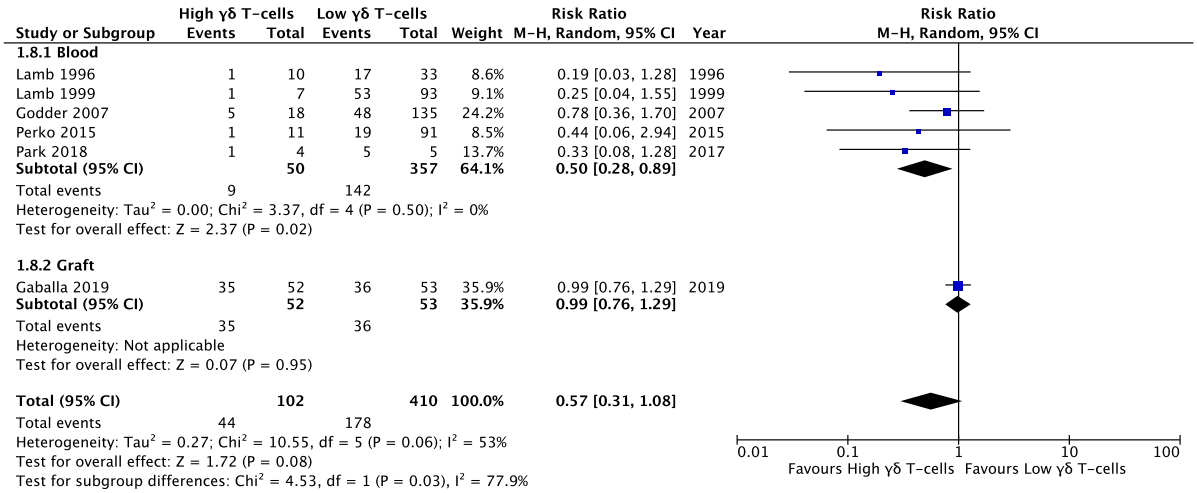

Figure S1. Forest plot of relapse data (Allo-HSCT only). Plot shows meta-analysis result of allo-HSCT studies reporting number of relapses. Subgroup analysis according to the sample origin is also shown. Blue squares indicate the relative weight of each study in the meta-analysis and horizontal lines represent the 95%-CI for the effect size. Bigger squares show studies with higher relative weights. Weights are from random-effects analysis and are based on the size of the study and the number of events. Black diamonds represent the total effect size. M-H= Mantel-Haenszel.

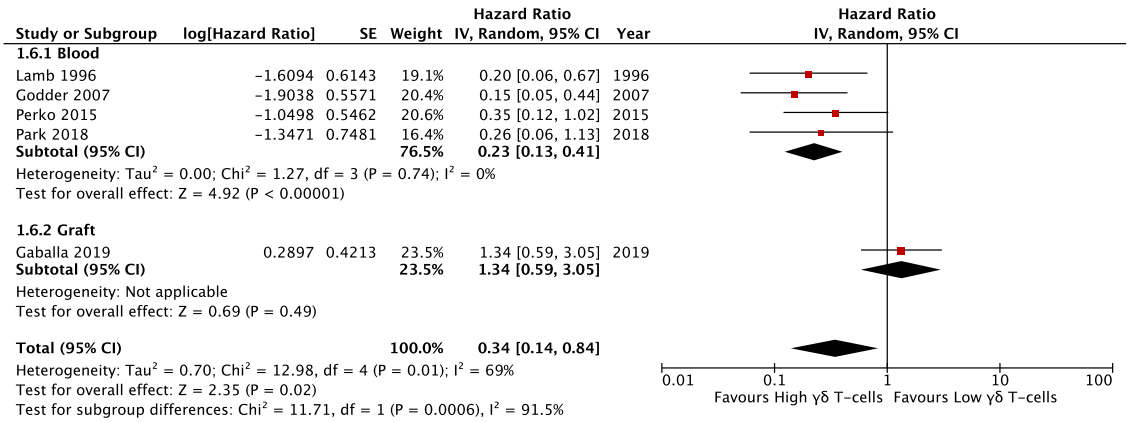

Figure S2. Forest plot of OS data (Allo-HSCT only). Plot shows meta-analysis result of allo-HSCT studies reporting OS. Subgroup analysis according to the sample origin is also shown. Red squares indicate the relative weight of each study in the meta-analysis and horizontal lines represent the 95%-CI for the effect size. Bigger squares show studies with higher relative weights. Weights are from random-effects analysis and are based on the size of the study and the number of events. Black diamonds represent the total effect size. IV= Inverse variance.