Supplementary materials

Table S1 Definitions of survival endpoints

Table S2 Quality assessment of eligible studies using the Newcastle-Ottawa Scale (NOS)

Fig S1 Sensitivity analysis (a) Overall survival; (b) Failure free survival; (c) Event free survival; (d) Disease-specific survival; (e) Progression free survival

Fig S2 Publication bias (a) Overall survival; (b) Failure free survival; (c) Event free survival; (d) Disease-specific survival; (e) Progression free survival
Table S1 *Definitions of survival endpoints*

| Endpoints              | Definition                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Overall survival       | the date of diagnosis to death from any cause                                                                                             |
| Event-free survival    | the date of diagnosis to any treatment failure including lymphoma progression, or discontinuation of treatment for any reason including death |
| Progression-free survival | the date of diagnosis to relapse, progression, or death from any cause                                                                    |
| Disease-specific survival | the date of diagnosis until the date of death as a result of a lymphoma-related cause                                                        |
| Failure-free survival  | the date of start of treatment to the date of treatment failure (progression or relapse) or death from HL, whichever was first.              |
Table S2 Quality assessment of eligible studies using the Newcastle-Ottawa Scale (NOS)

| First Author                  | Year | Representativeness of the exposed cohort | Selection of the nonexposed cohort | Assessmenet of exposure | Demonstratior that outcome of interest was not present at start of study | Comparability of cohorts on the basis of the design or analysis | Ascertainmen of outcome | Long enough follow-up for outcome to occur | Adequacy of follow-up of cohorts | Overall score |
|-------------------------------|------|-----------------------------------------|-----------------------------------|-------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------|------------------------|---------------------------------------------|--------------------------------|--------------|
| Yang, L. Q.                   | 2022 | ☆                                       | ☆                                 | ☆                       | 0                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 7            |
| Wang, C.                      | 2021 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Santisteban-Espejo, A.        | 2021 | ☆                                       | ☆                                 | ☆                       | 0                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 7            |
| Qin, J. Q.                    | 2021 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Antel, K.                     | 2021 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Werner, L.                    | 2020 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Cheriyalinkal Parambil, B.    | 2020 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | 0                          | 7            |
| Wang, C.                      | 2018 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Koh, Y. W.                    | 2018 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Hollander, P.                 | 2018 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Myriam, B. D.                 | 2017 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Chang, K. C.                  | 2017 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Park, J. H.                   | 2016 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Tanyildiz, H. G.              | 2015 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Paydas, S.                    | 2015 | ☆                                       | ☆                                 | ☆                       | 0                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 7            |
| Elsayed, A. A.                | 2014 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 9            |
| Koh, Young Wha                | 2013 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Kanakry, J. A.                | 2013 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Koh, Y. W.                    | 2012 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 8            |
| Kamper, Peter                 | 2011 | ☆                                       | ☆                                 | ☆                       | ☆                                                                   | ☆                                                               | ☆                     | ☆                            | ☆                         | 7            |
| Author                  | Year | Score | Score | Score | Score | Score | Score | Score | Score | Total |
|------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Souza, E. M.           | 2010 | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
| Barros, M. H.          | 2010 | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | 0     | 7     |
| Diepstra, A.           | 2009 | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
| Chetaille, B.          | 2009 | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | 0     | 7     |
| Chabay, P. A.          | 2008 | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
| Keresztes, K.          | 2006 | ☆     | ☆     | ☆     | ☆     | ☆     | 0     | 7     |
| Jarrett, R. F.         | 2006 | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
| Asano, N.              | 2006 | ☆     | ☆     | ☆     | 0     | ☆     | ☆     | 7     |
| Al-Kuraya, K.          | 2006 | ☆     | ☆     | ☆     | 0     | ☆     | 6     |
| Keegan, T. H.          | 2005 | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
| Claviez, A.            | 2005 | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
| Krugmann, J.           | 2003 | ☆     | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
| Herling, M.            | 2003 | ☆     | ☆     | ☆     | 0     | ☆     | 7     |
| Flavell, K. J.         | 2002 | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
| Stark, G. L.           | 2002 | ☆     | ☆     | ☆     | ☆     | 0     | 7     |
| Glavina-Durdov, M.     | 2001 | ☆     | ☆     | ☆     | ☆     | 0     | 7     |
| Clarke, C. A.          | 2001 | ☆     | ☆     | ☆     | ☆     | ☆     | 0     | 7     |
| Naresh, K. N.          | 2000 | ☆     | ☆     | ☆     | 0     | ☆     | 6     |
| Engel, M.              | 2000 | ☆     | ☆     | ☆     | ☆     | ☆     | 7     |
| Murray, P. G.          | 1999 | ☆     | ☆     | ☆     | 0     | ☆     | 6     |
| Enblad, G.             | 1999 | ☆     | ☆     | ☆     | 0     | ☆     | 7     |
| Morente, M. M.         | 1997 | ☆     | ☆     | ☆     | ☆     | ☆     | 8     |
Fig S1(a)

Fig S1(b)
Fig S2(a)

**OS Begg's Test: p=0.406**

Begg's funnel plot with pseudo 95% confidence limits

**OS Egger's test: p=0.162**

Egger's publication bias plot
Fig S2(b)

**FFS Begg's test: p=0.917**

![Begg's funnel plot with pseudo 95% confidence limits](image)

**FFS Egger's test: p=0.696**

![Egger's publication bias plot](image)
Fig S2(c)

EFS Begg's test: $p=0.876$

EFS Egger's test: $p=0.540$
Fig S2(d)

DSS Begg's test: p=0.266

Egger's publication bias plot

EFS Egger's test: p=0.363
Fig S2(e)

**PFS Begg's test: p=1.000**

Begg's funnel plot with pseudo 95% confidence limits

**PFS Egger's test: p=0.932**

Egger's publication bias plot