

Supplementary Table S1. Search Strategies

Search included: PubMed and EMBASE: date was from the inception through June 2017

1) PubMed search strategy

1. "Neoplasms"[Mesh]
2. cancer [Title/Abstract]
3. tumor [Title/Abstract]
4. tumour [Title/Abstract]
5. carcinoma* [Title/Abstract]
6. neoplas* [Title/Abstract]
7. malignan*[Title/Abstract]
8. "Lymphocytes" [Mesh]
9. "Neutrophils" [Mesh]
10. neutrophil to lymphocyte ratio[Title/Abstract]
11. neutrophil lymphocyte ratio[Title/Abstract]
12. "Survival"[Mesh]
13. "Prognosis"[Mesh]
14. outcome*[Title/Abstract]
15. survival[Title/Abstract]
16. predict*[Title/Abstract]
17. immune[Title/Abstract]
18. immunotherapy[Title/Abstract]
19. (1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7) AND (8 OR 9 OR 10 OR 11) AND (12 OR 13 OR 14 OR 15 OR 16) AND (17 OR 18)

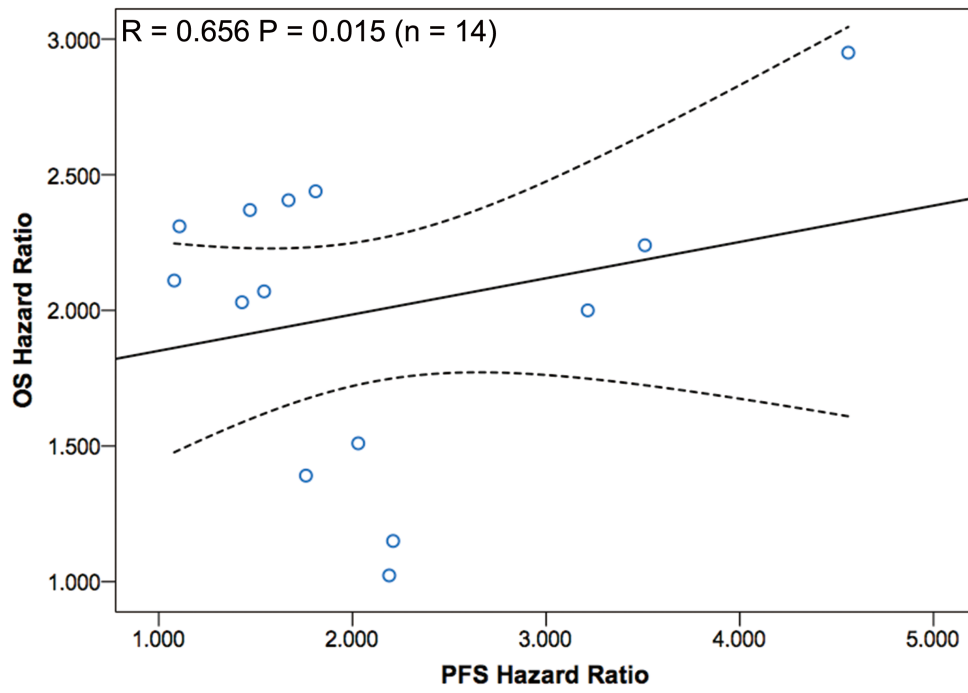
2) EMBASE search strategy

1. 'neoplasm'/exp
2. cancer:ab,ti
3. tumor:ab,ti
4. tumour:ab,ti
5. carcinoma:ab,ti
6. neoplas*:ab,ti
7. malignan*:ab,ti
8. adenoma*:ab,ti
9. 'lymphocyte'/exp
10. lymphocyte
11. 'neutrophil'/exp
12. Neutrophil
13. 'neutrophil-to-lymphocyte ratio'/exp
14. neutrophil lymphocyte ratio:ab,ti
15. nlr:ab,ti
16. 'n/l ratio':ab,ti
17. 'prognosis'/exp
18. 'survival'/exp
19. 'mortality'/exp
20. prognos*:ab,ti
21. outcome*:ab,ti
22. survival:ab,ti
23. treatment:ab,ti
24. predict*:ab,ti
25. immune:ab,ti
26. immunotherapy:ab,ti
27. (1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8) AND (((9 OR 10) AND (11 OR 12)) OR 13 OR 14 OR 15 OR 16) AND (17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24) AND (25 OR 26)

Supplementary Table S2. Methodological characteristics of included studies and quality score.

No.	Authors	Year	Representativeness of population	Non exposed cohort	Ascertainment of exposure	Outcome not present at start of study	Appropriate confounding measurement and account	Sufficient measurement of outcomes	Completeness of follow-up
1	Keizman et al.	2012	0	1	1	1	2	1	2
2	Botta et al.	2013	0	1	1	1	2	1	1
3	Cetin et al.	2013	0	1	1	1	2	1	2
4	Dirican et al.	2013	0	1	1	1	2	1	2
5	Zheng et al.	2013	0	1	1	1	2	1	2
6	Kobayashi et al.	2013	0	1	1	1	2	1	2
7	Fonseca et al.	2014	0	1	1	1	2	1	2
8	Gunduz et al.	2014	0	1	1	1	2	1	1
9	Keizman et al.	2014	0	1	1	1	2	1	2
10	Dana et al.	2014	0	1	1	1	2	1	0
11	Park et al.	2014	0	1	1	1	2	1	2
12	Wang et al.	2014	0	1	1	1	2	1	0
13	Ferrucci et al.	2015	0	1	1	1	2	1	0
14	Namikawa et al.	2015	0	1	1	1	2	1	0
15	Santoni et al.	2015	0	1	1	1	2	1	1
16	Gardini et al.	2016	0	1	1	1	2	1	0
17	Chrom et al.	2016	0	1	1	1	2	1	0
18	Ferrucci et al.	2016	0	1	1	1	2	1	1
19	Keizman et al.	2016	0	1	1	1	2	1	0
20	Passardi et al.	2016	0	1	1	1	2	1	2
21	Taipale et al.	2016	0	1	1	1	2	1	0
22	Zhang et al.	2016	0	1	1	1	2	1	0
23	Bagley et al.	2017	0	1	1	1	2	1	0
24	Cassidy et al.	2017	0	1	1	1	2	1	2
25	Jung et al.	2017	0	1	1	1	2	1	0
26	Kuzman et al.	2017	0	1	1	1	2	1	0
27	Tanaka, et al.	2017	0	1	1	1	2	1	2

Supplementary Figure S1. Correlation between overall survival (OS) and progression-free survival (PFS).



Supplementary Figure S2. Funnel plots for (a) overall survival and (b) progression-free survival from included studies.

