

Appendix. Search strategy for identification of studies to be included in the review.

Search strategy

- i) Controlling nutritional status score OR CONUT OR immune-nutritional biomarker OR serum albumin OR total cholesterol OR lymphocyte count.
- ii) Stomach tumor OR gastric tumor OR gastric neoplasm OR gastric malignancy OR gastric carcinoma OR gastric adenocarcinoma)
- iii) Outcomes OR mortality OR survival OR recurrence OR prognosis OR prognostic
- iv) (#1 AND #2 AND #3)
- v) (Addresses[ptyp] OR Autobiography[ptyp] OR Bibliography[ptyp] OR Biography[ptyp] OR pubmed books[filter] OR Case Reports[ptyp] OR Congresses[ptyp] OR Consensus Development Conference[ptyp] OR Directory[ptyp] OR Duplicate Publication[ptyp] OR Editorial[ptyp] OR Systematic reviews OR Meta-analysis OR Festschrift[ptyp] OR Guideline[ptyp] OR In Vitro[ptyp] OR Interview[ptyp] OR Lectures [ptyp] OR Legal Cases[ptyp] OR News[ptyp] OR Newspaper Article[ptyp] OR Personal Narratives [ptyp] OR Portraits[ptyp] OR Retracted Publication[ ptyp] OR Twin Study[ptyp] OR Video-Audio Media[ptyp])
- vi) (#4 NOT #5)

Table SI. Author's judgements about study quality using the adapted Ottawa-Newcastle Risk of Bias Assessment tool.

Parameter	Zhu <i>et al</i> (12)	Galizia <i>et al</i> (13)	Sun <i>et al</i> (14)	Qian <i>et al</i> (15)	Jin <i>et al</i> (16)	Akagunduz <i>et al</i> (17)	Lin <i>et al</i> (18)	Huang <i>et al</i> (19)
Representativeness/appropriateness of participant selection Random or consecutive recruitment=Y Convenience sample=N Not reported or unclear	Y	Y	Y	Y	Y	Y	Y	Y
Control for baseline differences in cohorts Similarity of groups at baseline or adjustment in analyses=Y No attempt to control or adjust=N Not reported=NR	Y	Y	N	Y	Y	Y	Y	Y
Loss to follow-up Explanation provided for loss of participants and/or intention to treat=Y No explanation =N	Y	Y	Y	Y	Y	N	Y	Y
Masking of exposure to outcomes assessor Description of masking=Y No masking or no description =N	Y	Y	Y	Y	Y	Y	Y	Y
Ascertainment of condition Description of ascertainment/diagnostic criteria=Y No description or patient self-report=N	Y	Y	Y	Y	Y	Y	Y	Y
Documentation of other treatment modalities Documentation=Y No documentation=N	Y	Y	Y	Y	Y	Y	N	Y

Extent to which valid outcomes are described Adequate description of outcome=Y Insufficient detail regarding outcome or follow-up time=N	Y	Y	Y	Y	N	Y	Y	Y
Pre-specification of harms, mode of harms collection Description of a list of harms assessed or monitoring=Y No such description or passive harms collection=N No adverse events reported=NA	Y	Y	Y	N	Y	Y	Y	Y
Financial Conflict of interest (COI) Funding source reported=Y Funding source not reported=N	Y	Y	Y	Y	Y	N	Y	Y

Table SI continued. Author's judgements about study quality using the adapted Ottawa-Newcastle Risk of Bias Assessment tool.

Parameter	Jeon <i>et al</i> (20)	Hirahara <i>et al</i> (21)	Kuroda <i>et al</i> (22)	Zheng <i>et al</i> (23)	Liu <i>et al</i> (24)	Ryo <i>et al</i> (25)	Suzuki <i>et al</i> (26)	Xiao <i>et al</i> (27)	Aoyama <i>et al</i> (28)
Representativeness/appropriateness of participant selection Random or consecutive recruitment=Y Convenience sample=N Not reported or unclear	Y	Y	Y	Y	Y	Y	Y	Y	Y
Control for baseline differences in cohorts Similarity of groups at baseline or adjustment in analyses=Y No attempt to control or adjust=N Not reported=NR	Y	Y	Y	Y	Y	N	Y	Y	Y
Loss to follow-up Explanation provided for loss of participants and/or intention to treat=Y No explanation =N	Y	Y	Y	Y	N	Y	Y	Y	N
Masking of exposure to outcomes assessor Description of masking=Y No masking or no description =N	Y	N	Y	Y	Y	Y	Y	Y	Y
Ascertainment of condition Description of ascertainment/diagnostic criteria=Y No description or patient self-report=N	Y	Y	Y	Y	Y	Y	Y	Y	Y

Documentation of other treatment modalities Documentation=Y No documentation=N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Extent to which valid outcomes are described Adequate description of outcome=Y Insufficient detail regarding outcome or follow-up time=N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pre-specification of harms, mode of harms collection Description of a list of harms assessed or monitoring=Y No such description or passive harms collection=N No adverse events reported=NA	N	Y	Y	Y	Y	N	Y	Y	Y
Financial Conflict of interest (COI) Funding source reported=Y Funding source not reported=N	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table SII. Findings of the Eggers test for the outcomes.

Outcomes	Number of studies	Bias with 95% confidence interval	P-value
Overall survival	14	0.78 (-0.46, 2.02)	0.19
Recurrence free survival	7	2.22 (-1.18, 4.25)	0.38
Cancer specific survival	4	2.69 (-7.12, 12.5)	0.36
T3 or T4 tumor status	8	-2.75 (-8.27, 2.77)	0.27
N2 or N3 nodal status	8	0.46 (-3.81, 4.72)	0.80
Stage III or stage IV tumor	12	2.03 (-1.24, 3.82)	0.30
Poor tumour differentiation	9	3.31 (-1.21, 6.83)	0.16
Microvascular invasion	5	3.33 (-1.83, 8.49)	0.13
Need for adjuvant chemotherapy	5	-0.32 (-10.2, 9.5)	0.92
Post-operative complications	11	1.78 (0.84, 2.72)	0.002