Appendix 1

A. Detailed search terms

```
(A1) Search terms in PubMed
 "Glycine Hydroxymethyltransferase" [Mesh] OR "SHMT protein"
 "Prognosis" [Mesh] OR "prognoses" OR "survival" OR "prognostic factors"
 "Neoplasms" [Mesh] OR "tumour" OR "cancer" OR ""neoplasm"
 #1 AND #2 AND #3
(A2) Search terms in Embase
 'glycine hydroxymethyltransferase'/exp
 'shmt protein'
#3
 'shmt'
#4
 'serine hydroxymethyltransferase'
 'shmt-1'
#6
 'shmt-2'
 'prognosis'/exp
#8
 'survival'
 'prognostic factors'
 'neoplasm'/exp
#11
 'tumour'
#12
 'cancer'
#13
 'neoplasms'
 #1 OR #2 OR #3 OR #4 OR #5 OR #6
#15
 #7 OR #8 OR #9
#16
 #10 OR #11 OR #12 OR #13
#17
 #14 AND #15 AND #16
```

```
(A3) Search terms in Web of Science
TS = ("Prognosis" OR "survival" OR "prognostic factors")
 AK = ("Prognosis" OR "survival" OR "prognostic factors")
TS = ( "Glycine Hydroxymethyltransferase" OR "SHMT protein" OR "SHMT" OR "serine hydroxymethyltransferase" OR
"SHMT-1" OR "SHMT-2")
#4
 AK = ( "Glycine Hydroxymethyltransferase" OR "SHMT protein" OR "SHMT" OR "serine hydroxymethyltransferase"
OR "SHMT-1" OR "SHMT-2")
TS = ("Neoplasms" OR "tumour" OR "cancer" OR "neoplasm" OR "tumor")
 AK = ("Neoplasms" OR "tumour" OR "cancer" OR "neoplasm" OR "tumor")
 #2 OR #1
#8
 #4 OR #3
#9
 #6 OR #5
#10
 #9 AND #8 AND #7
(A4) Search terms in Cochrane Central Register of Controlled Trials (CENTRAL)
 (Glycine Hydroxymethyltransferase):ti,ab,kw (Word variations have been searched)
 SHMT protein
 Prognosis
#4
 survival
 prognostic factors
 Neoplasms
 cancer
#8
 tumour
 #1 OR #2
#10
 #3 OR #4 OR #5
#11
 #7 OR #9 OR #9
 #9 AND #10 AND #11
```

B. Relevant forest plots of the clinicopathological characteristics associated with SHMT2 expression

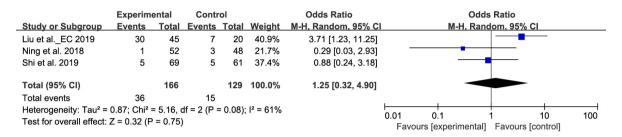


Figure S1 The forest plots of distant metastasis.

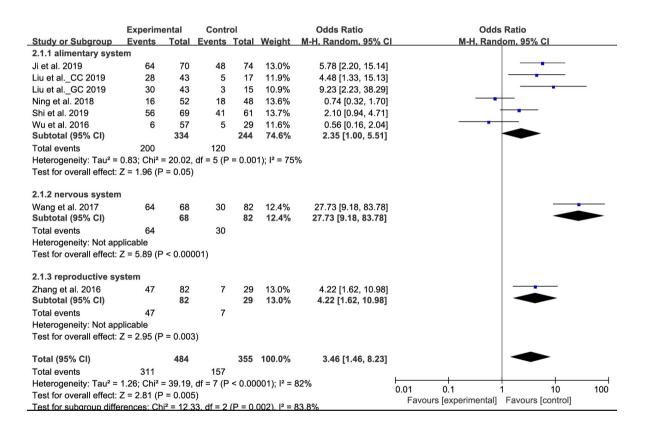


Figure S2 The forest plots of histopathological grade.

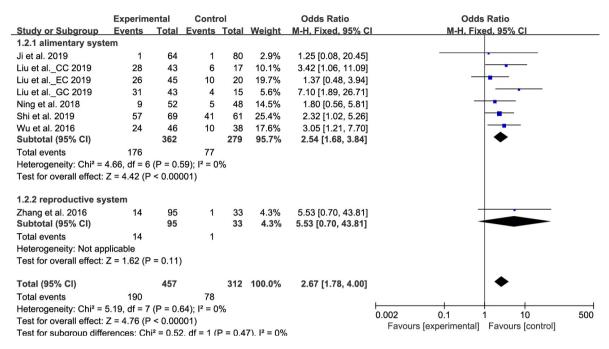


Figure S3 The forest plots of lymphatic invasion.

Study or Subgroup	Experimental		Control		Odds Ratio		Odds Ratio			
	Events	Total	Events	Total	Weight	M-H, Fixed, 95% C	1	M-H, Fix	ed, 95% CI	
Ji et al. 2019	34	66	30	80	33.8%	1.77 [0.91, 3.43]			•	
Liu et alCC 2019	32	43	7	17	6.6%	4.16 [1.27, 13.58]			-	
Liu et alEC 2019	23	45	8	20	13.9%	1.57 [0.54, 4.57]		30	•	
Liu et alGC 2019	28	43	6	15	8.0%	2.80 [0.84, 9.38]		5	- Table 10	
Ning et al. 2018	16	52	8	48	14.8%	2.22 [0.85, 5.81]		- 1		
Shi et al. 2019	51	69	32	61	22.8%	2.57 [1.23, 5.36]				
Total (95% CI)		318		241	100.0%	2.23 [1.55, 3.21]			•	
Total events	184		91							
Heterogeneity: Chi2 =	2.22, df = 5	(P = 0.	82); I ² = 0	%			0.04	1	1 10	400
Test for overall effect: Z = 4.32 (P < 0.0001)							0.01 Favo	0.1 ours [experimental]	1 10 Favours [control]	100

Figure S4 The forest plots of TNM grade.