

Table S1 Search Strategies in OVID

1	Lung Neoplasms/	266893
2	Lung Neoplasms.tw.	868
3	Pulmonary Neoplasm.tw.	327
4	Lung Cancer*.tw.	212307
5	Pulmonary Cancer*.tw.	1312
6	(Cancer adj2 Lung).tw.	209382
7	1 or 2 or 3 or 4 or 5 or 6	339607
8	Carcinoma, Non-Small-Cell Lung/	74396
9	Carcinoma, Non-Small-Cell Lung.tw.	128
10	Non-Small Cell Lung Carcinomas.tw.	1105
11	Nonsmall Cell Lung Cancer.tw.	2957
12	Non*small Cell Lung Cancer.tw.	2962
13	8 or 9 or 10 or 11 or 12	75635
14	Adenocarcinoma of Lung/	11656
15	Adenocarcinoma of Lung.tw.	939
16	Lung Adenocarcinoma.tw.	25126
17	14 or 15 or 16	28191
18	Carcinoma, Squamous Cell of Lung.tw.	7
19	Carcinoma, Large Cell/	2598
20	Carcinoma, Large Cell.tw.	122
21	18 or 19 or 20	2708
22	7 or 13 or 17 or 21	347200
23	Hispanic Latinos.tw.	224
24	Latin*.tw.	60258
25	Hispanics.tw.	13626
26	Hispanic Americans.tw.	787
27	23 or 24 or 25 or 26	73289
28	22 and 27	373
29	Genes, erbB-1/	1379
30	Genes, erbB-1.tw.	1
31	EGFR.tw.	83329
32	EGFR Gene.tw.	2931
33	EGFR Gene*.tw.	3130
34	29 or 30 or 31 or 32 or 33	83630
35	28 and 34	38
36	Genes, ras/	12755

Table S1 (continued)

Table S1 (continued)

1	Lung Neoplasms/	266893
37	Genes, ras.tw.	58
38	KRAS.tw.	19122
39	K-ras Genes.tw.	225
40	Kras Oncogene.tw.	327
41	36 or 37 or 38 or 39 or 40	30828
42	28 and 41	21
43	Anaplastic Lymphoma Kinase/	4560
44	Anaplastic Lymphoma Kinase.tw.	5158
45	ALK.tw.	12852
46	ALK-Tyrosine-Kinase-Receptor.tw.	7
47	Anaplastic Lymphoma Receptor Tyrosine Kinase.tw.	93
48	ALK-Kinase.tw.	208
49	43 or 44 or 45 or 46 or 47 or 48	13966
50	28 and 49	19
51	ROS1.tw.	2365
52	28 and 51	5
53	Proto-Oncogene Proteins B-raf/	12349
54	BRAF.tw.	20034
55	BRAF-Kinase.tw.	342
56	54 or 55	20034
57	28 and 56	7
58	Genes, erbB-2/	3087
59	Genes, erbB-2.tw.	2
60	HER2.tw.	37827
61	erbb2 Gene.tw.	394
62	c erbB 2 Proto Oncogenes.tw.	7
63	58 or 59 or 60 or 61 or 62	39834
64	28 and 63	3
65	Proto-Oncogene-Proteins-c-ret/	4084
66	RET.tw.	10210
67	c-ret Protein.tw.	12
68	65 or 66 or 67 or 68	10687
69	28 and 69	2
70	Proto-Oncogene Proteins c-met/	6068

Table S1 (continued)

Table S1 (*continued*)

1	Lung Neoplasms/	266893
71	Proto-Oncogene Proteins c-met.tw.	0
72	MET.tw.	273091
73	MET Receptor Tyrosine Kinase.tw.	383
74	71 or 72 or 73 or 74	273729
75	28 and 75	13
76	Receptor, trkA/	3378
77	Receptor, trkA.tw.	583
78	NTRK.tw.	1112
79	Receptor, NTRK1.tw.	20
80	77 or 78 or 79 or 80	4444
81	28 and 81	1
82	Genes, p53/	15699
83	Genes, p53.tw.	726
84	TP53-Genes.tw.	368
85	83 or 84 or 85	16586
86	28 and 86	0
87	PIK3CA.tw.	7297
88	PI 3-Kinase.tw.	3996
89	Phosphoinositide 3 Kinases.tw.	849
90	PI-3K.tw.	1018
91	88 or 89 or 90 or 91	13026
92	28 and 92	3
93	STK11.tw.	1341
94	28 and 94	5
95	Genetic Variation/	129292
96	Genetic Diversity.tw.	47039
97	Variation, Genetic.tw.	177
98	96 or 97 or 98	154980
99	Genotype/	241382
100	Mutation/	495990
101	100 or 101	710257
102	99 or 102	831447
103	34 or 41 or 49 or 51 or 56 or 63 or 69 or 75 or 81 or 86 or 92 or 94 or 103	1262712
104	28 and 104	77

Table S2 Search Strategies in EMBASE

	Search Term	Number
	#57	
FINAL	#14 AND #56	218
	#56	
ALL & MUT	#39 OR #40 OR #41 OR #55	1217335
	#55	
ALL	#15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #24 OR #27OR #29 OR #32 OR #35 OR #38	316962
	#54	
MET	#14 AND #55	9
	#53	
STK11	#14 AND #38	20
	#52	
PIK3	#14 AND #35	3
	#51	
P53	#14 AND #32	42
	#50	
NTRK	#14 AND #29	6
	#49	
RET	#14 AND #24	10
	#48	
HER2	#14 AND #20	33
	#47	
BRAF	#14 AND #19	6
	#46	

Table S2 (*continued*)

Table S2 (continued)

	Search Term	Number
ROS1	#14 AND #18	5
	#45	
ALK	#14 AND #17	1
	#44	
KRAS	#14 AND #16	9
	#43	
EGFR	#14 AND #15	0
MUTATION	#42	
	#39 OR #40 OR #41	976266
	#41	
	'gene fusion'	24723
	#40	
	'gene mutation'/exp	951307
	#39	
	'gene mutation'	580901
GENES	#38	
	#36 OR #37	5525
	#37	
	'protein kinase lkb1'	5153
	#36	
	'stk11 gene'	797
	#35	
	#33 OR #34	

Table S2 (continued)

Table S2 (continued)

	Search Term	Number
	#34	5077
	'pik3ca protein'	
	#33	969
	'pik3ca gene'	
	#32	4214
	#30 OR #31	
	#31	186037
	'tp53 gene'	
	#30	7122
	'protein p53'	
	#29	183674
	#27 OR #28	
	#28	8229
	'brain derived neurotrophic factor receptor'	
	#27	7758
	'ntrk1 gene'	
	#26	530
	#24 OR #25	
	#25	15223
	'scatter factor receptor'	
	#24	13903
	'met gene'	
		2693

Table S2 (continued)

Table S2 (continued)

Search Term	Number
#23	
#21 OR #22	7692
#22	
'protein ret'	6527
#21	
'ret gene'	2168
#20	
'epidermal growth factor receptor 2'	92506
#19	
'braf gene'	6479
#18	
'ros1 gene'	1295
#17	
'alk receptor tyrosine kinase'	142
#16	
'kras gene'	3229
#15	
'egfr signaling'	7049
#14	
#9 AND #13	2100
#13	
#10 OR #11 OR #12	158834

Table S2 (continued)

Table S2 (continued)

Search Term	Number
#12	
'latin american medicine'	125
#11	
'hispanic'	135916
#10	
'south and central america'	23424
#9	
#5 OR #6 OR #7 OR #8	566255
#8	
'lung large cell carcinoma'	117
#7	
'squamous cell lung carcinoma'	17872
#6	
'lung adenocarcinoma'	66756
#5	
#1 OR #2 OR #3	562216
#4	
'non small cell lung cancer'/exp	224695
#3	
'non small cell lung cancer'/exp	224695
#2	
'non small cell lung cancer'	186164
#1	
'lung cancer'/exp OR 'lung cancer'	562216

Table S3 Assessment of certainty of the evidence using GRADE approach

№ of studies	Certainty assessment						Effect	Certainty	Importance
	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Overall Survival (assessed with months)									
8	non-randomised studies	serious ^a	serious ^b	not serious	not serious	all plausible residual confounding would reduce the demonstrated effect	HR 0.67; 95% CI (0.57, 0.78)	⊕⊕⊕○ Moderate ^a	CRÍTICO
Progression Free Survival (assessed with months)									
2	non-randomised studies	serious ^a	serious ^b	not serious	serious ^c	all plausible residual confounding would reduce the demonstrated effect	HR 0.75; 95% CI (0.61, 0.91)	⊕⊕○○ Low ^a	CRÍTICO

Explanations:

- High risk of attrition bias (patient loss) and confounding bias (effect-modifying variables that distort the relationship between the prognostic factor and the outcome).
- There is significant clinical and methodological heterogeneity considering the population characteristics and the cohort design.
- There is limited data available; however, the confidence interval is wide, and it is likely that the expected clinical significance will not be achieved.

KRAS vs WT

Overall Survival

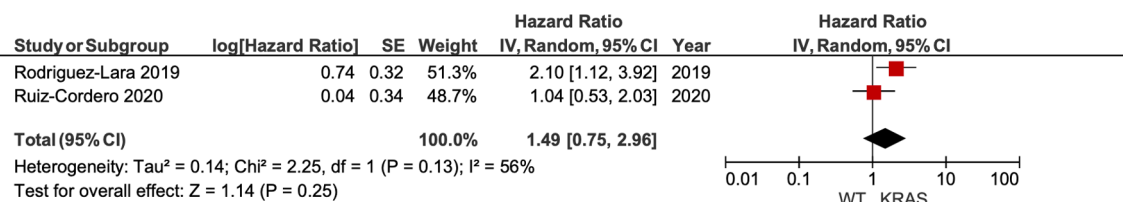


Figure S1 Meta-Analysis of Hazard Ratios (HR) for OS comparing *KRAS* and WT cohorts.

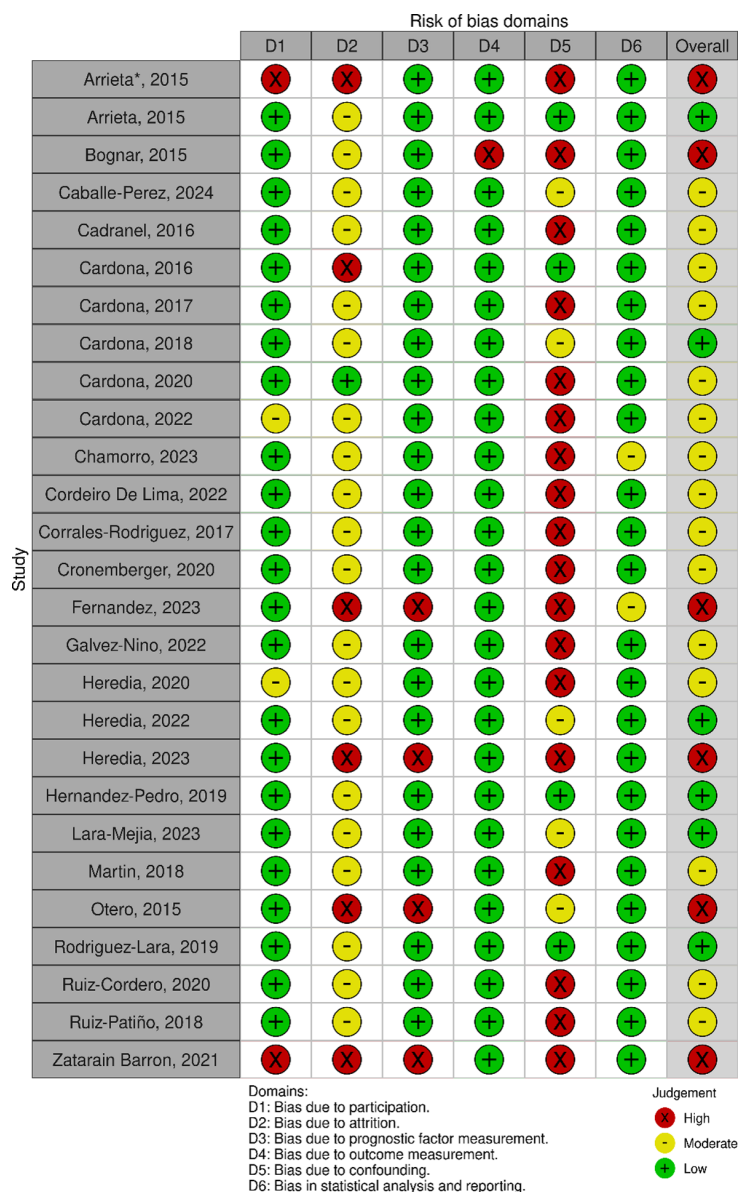


Figure S2 Risk of Bias assessment with QUIPS tool for each article. * Reference 70.

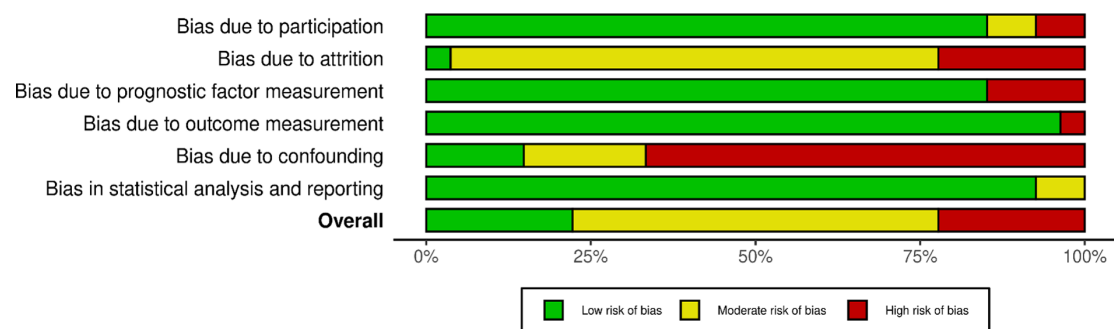


Figure S3 Summary of Risk of Bias assessment with QUIPS tool for each domain.