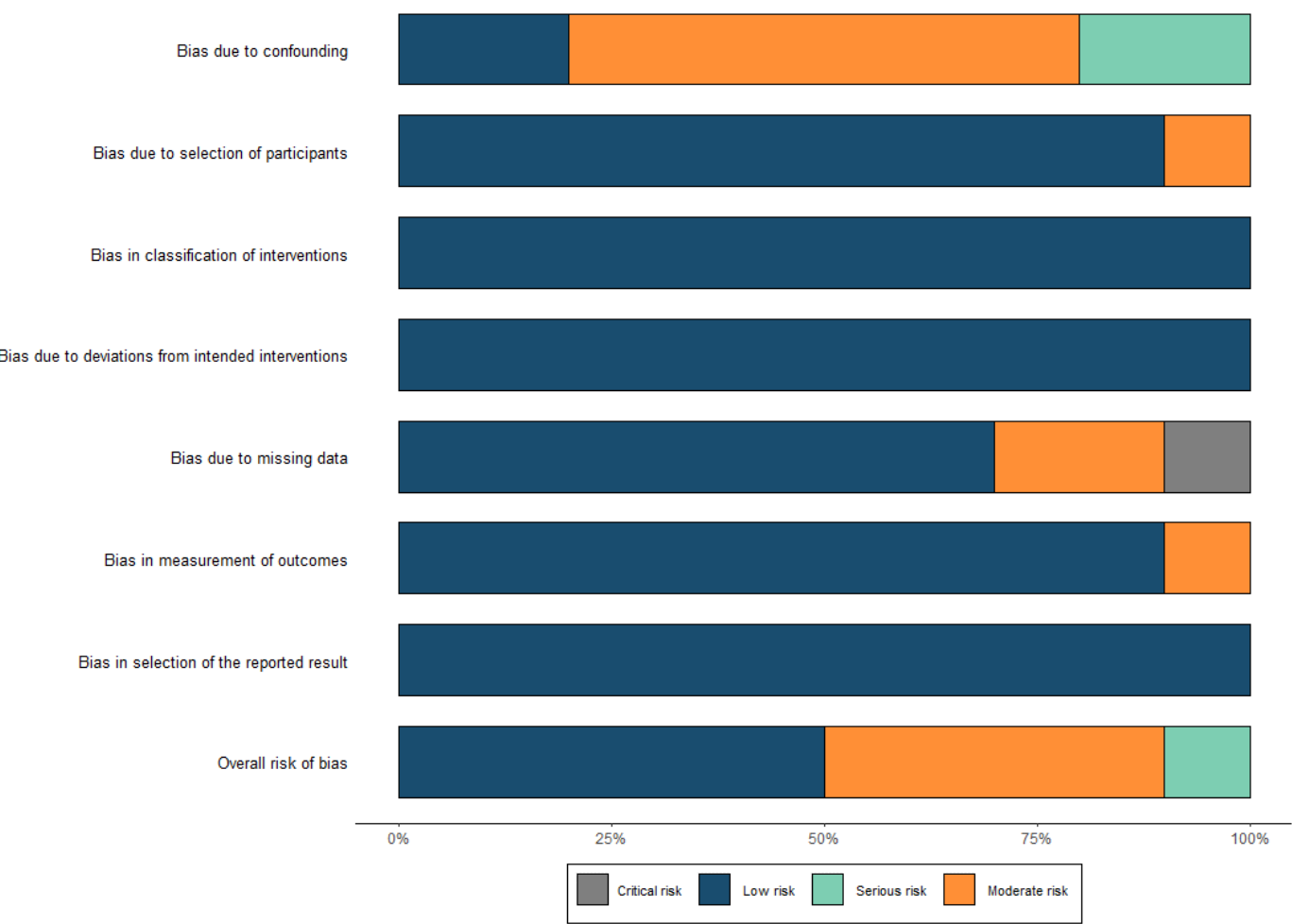


Supplements

s Figure 1. Summary of risk biases in the included studies.



s Figure 2. Risk biases of each study.

		Risk of bias domains							
		D1	D2	D3	D4	D5	D6	D7	Overall
Study	S1								
	S2								
	S3								
	S4								
	S5								
	S6								
	S7								
	S8								
	S9								
	S10								

Domains:
D1: Bias due to confounding.
D2: Bias due to selection of participants.
D3: Bias in classification of interventions.
D4: Bias due to deviations from intended interventions.
D5: Bias due to missing data.
D6: Bias in measurement of outcomes.
D7: Bias in selection of the reported result.

Judgement
 Critical
 Serious
 Moderate
 Low

s Fig 3 Meta-regression details of the current drinker's ratio.

Mixed-Effects Model (k = 5; tau² estimator: REML)

tau² (estimated amount of residual heterogeneity): 0 (SE = 0.0232)
tau (square root of estimated tau² value): 0
I² (residual heterogeneity / unaccounted variability): 0.00%
H² (unaccounted variability / sampling variability): 1.00
R² (amount of heterogeneity accounted for): 100.00%

Test for Residual Heterogeneity:
QE(df = 3) = 1.6346, p-val = 0.6516

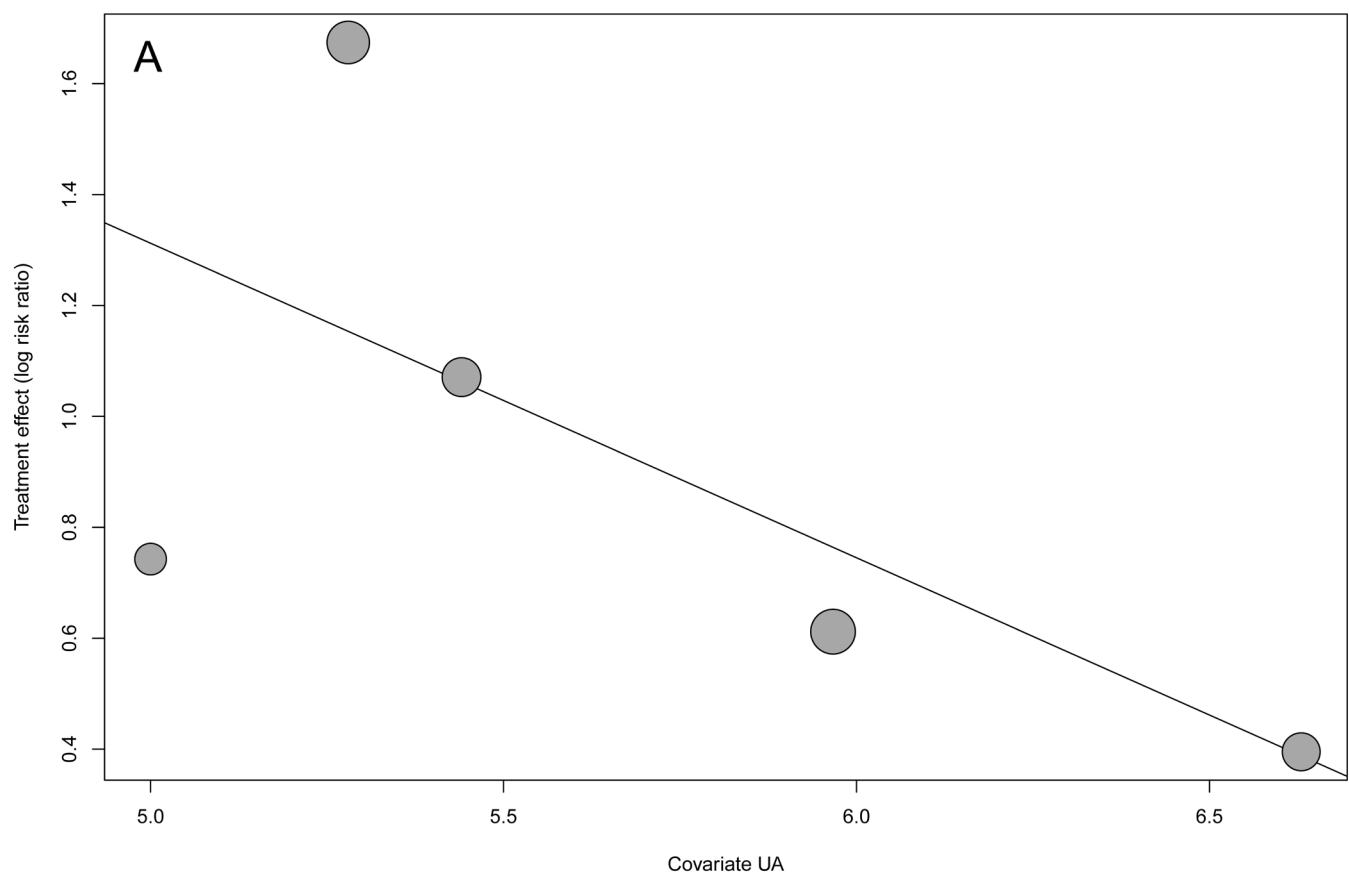
Test of Moderators (coefficient 2):
QM(df = 1) = 41.0069, p-val < .0001

Model Results:

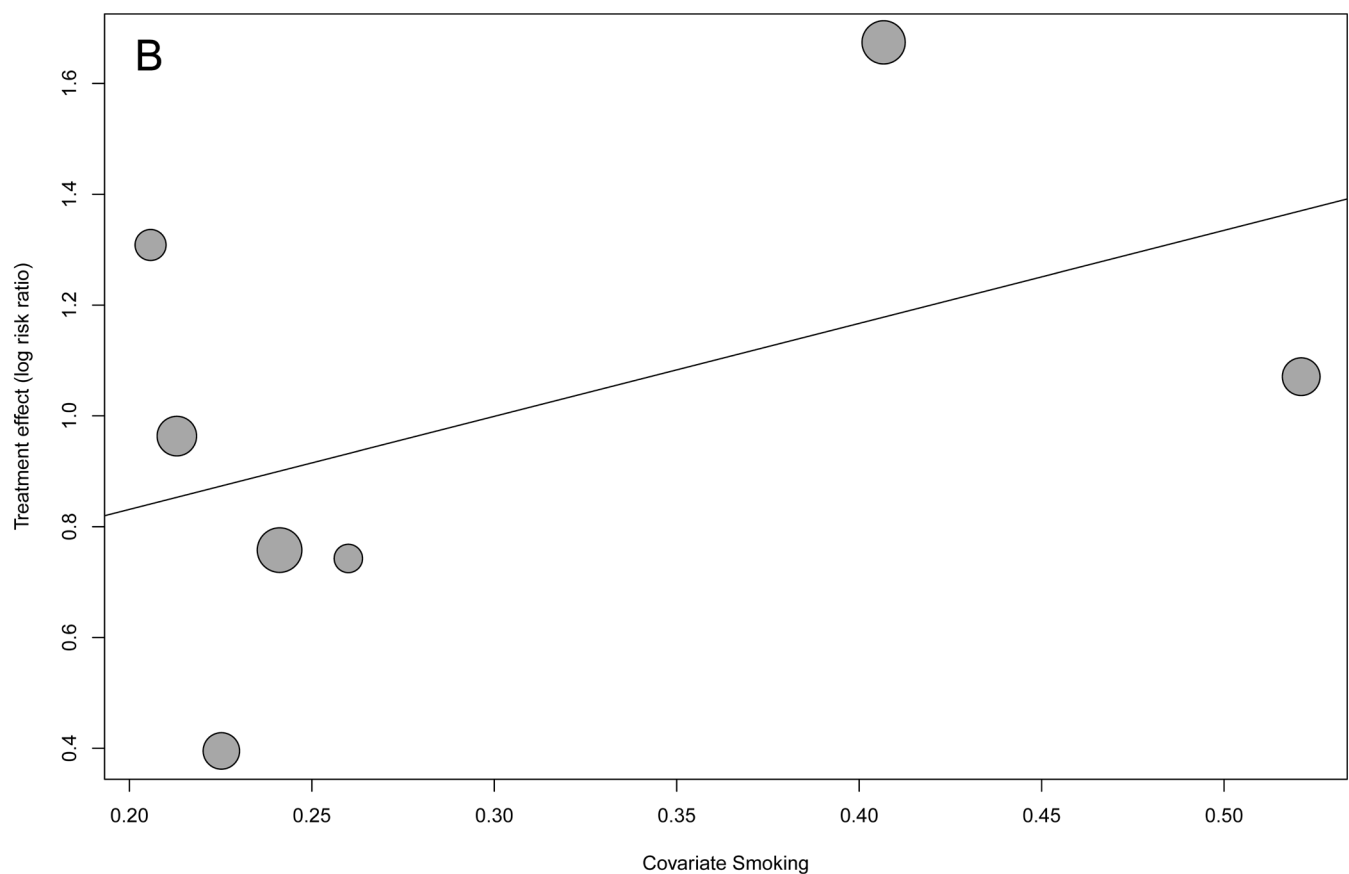
	estimate	se	zval	pval	ci.lb	ci.ub	
intrcpt	0.4180	0.1167	3.5831	0.0003	0.1893	0.6466	***
Drinking	2.0054	0.3132	6.4037	<.0001	1.3916	2.6192	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

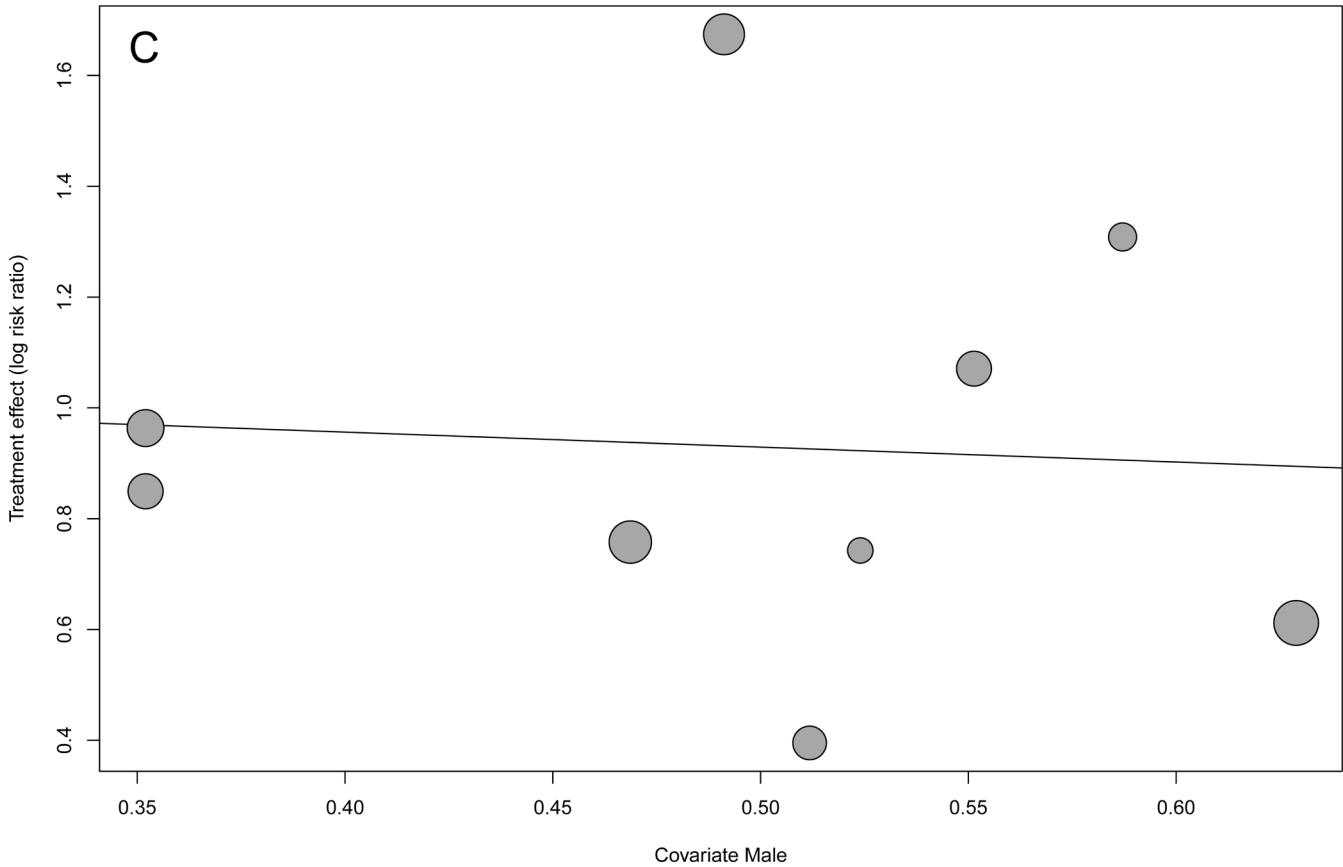
s Fig 4A~4F. Regression curves of covariates



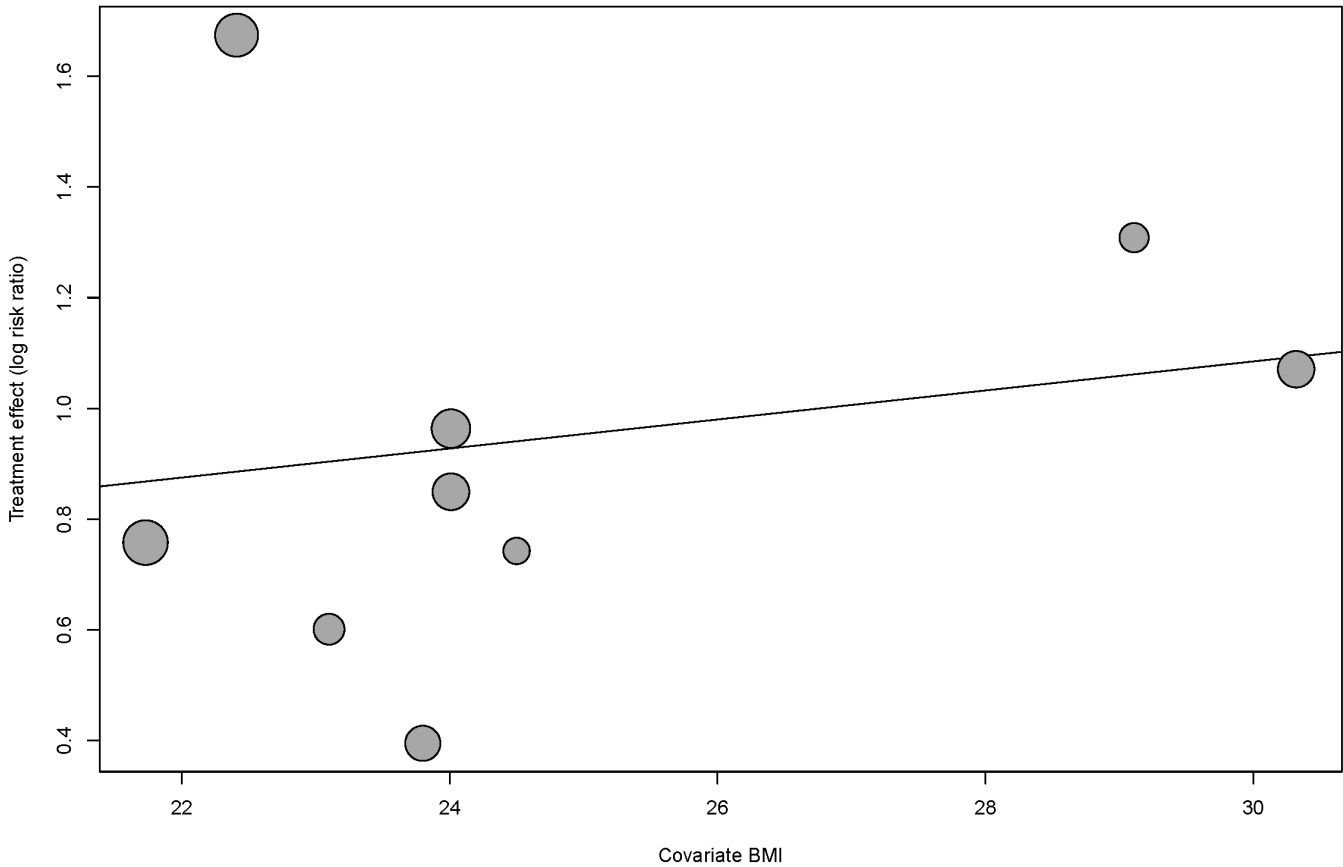
s Fig 4A



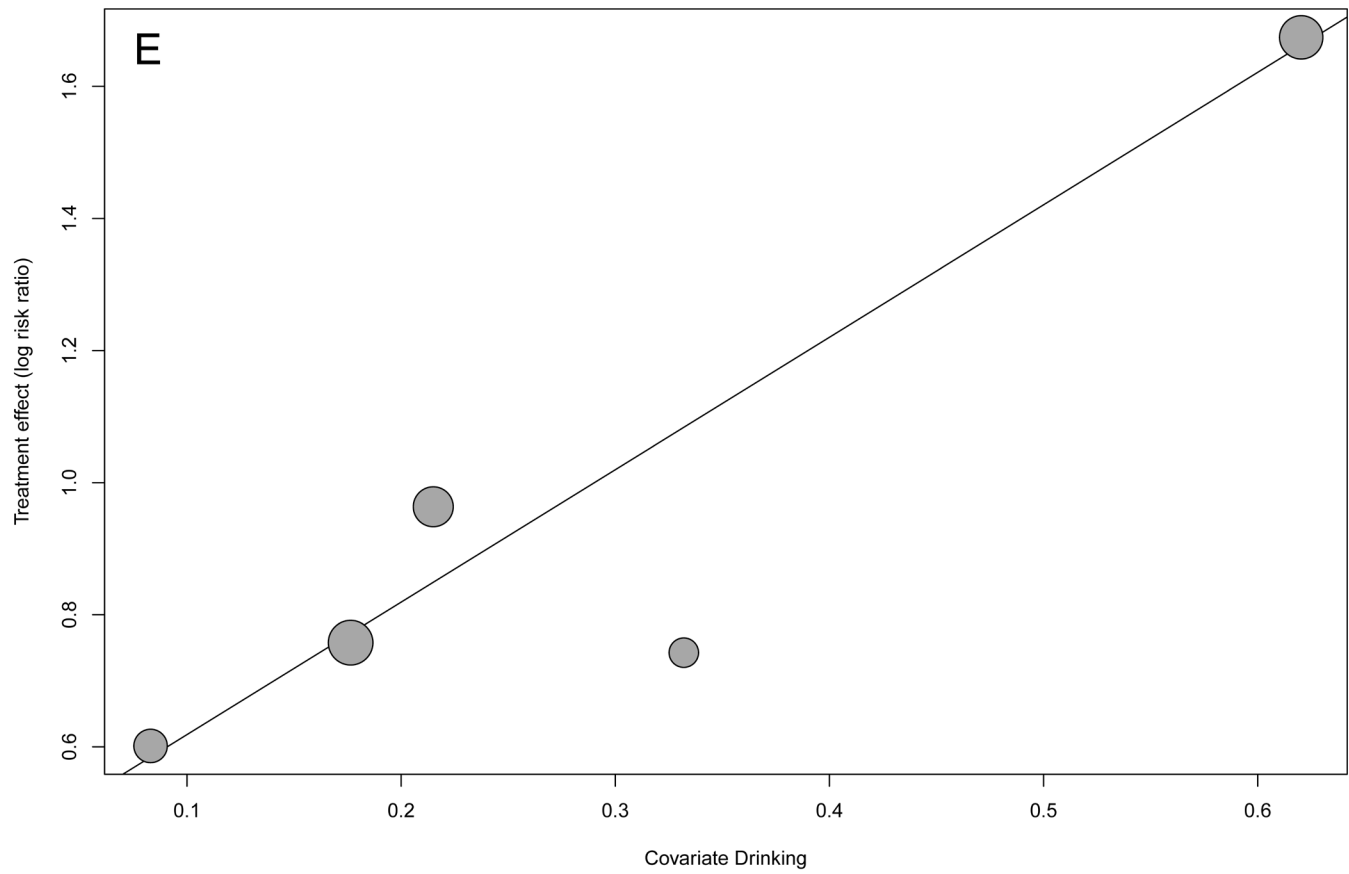
s Fig 4B



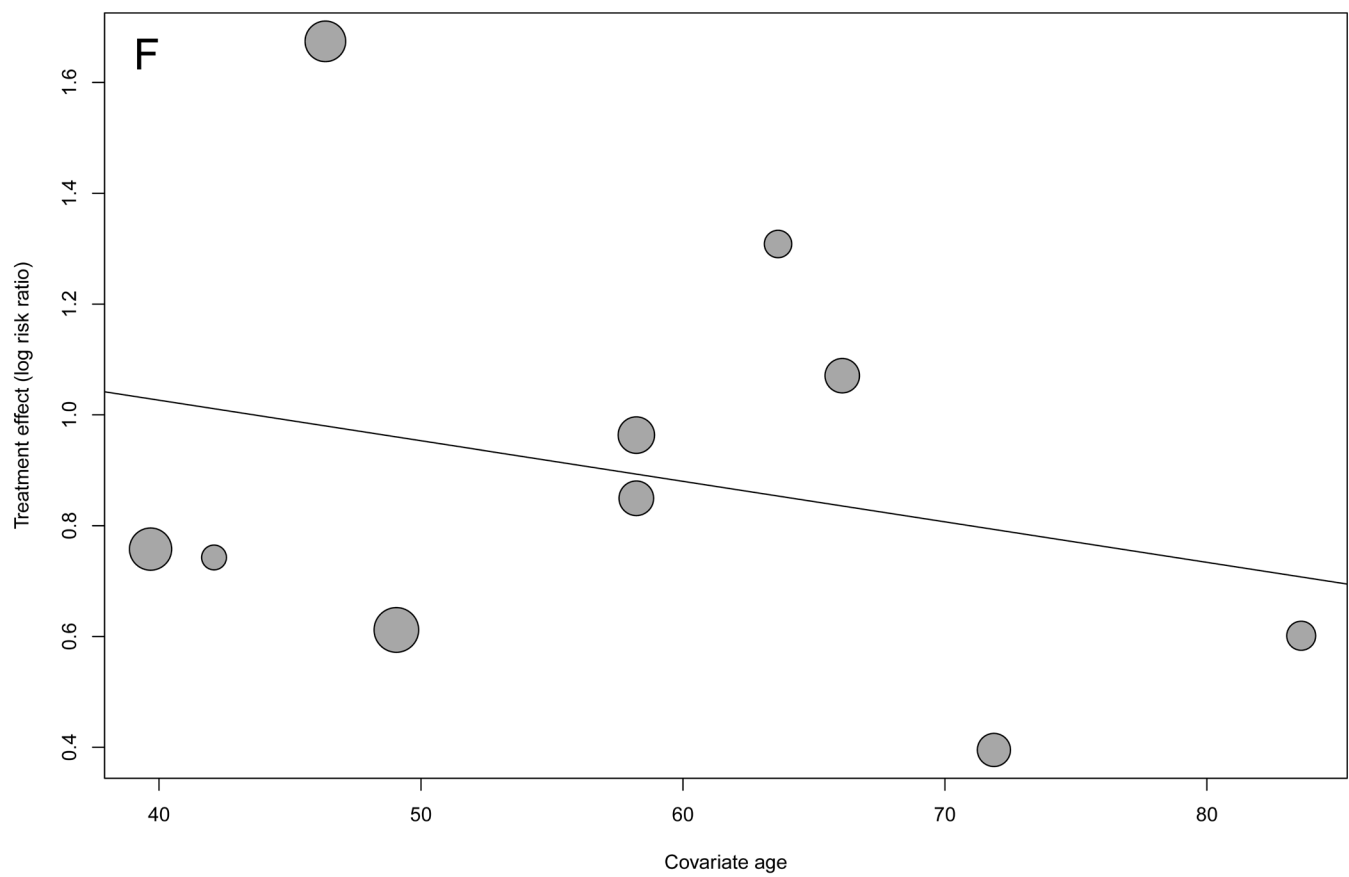
s Fig 4C



s Fig 4D

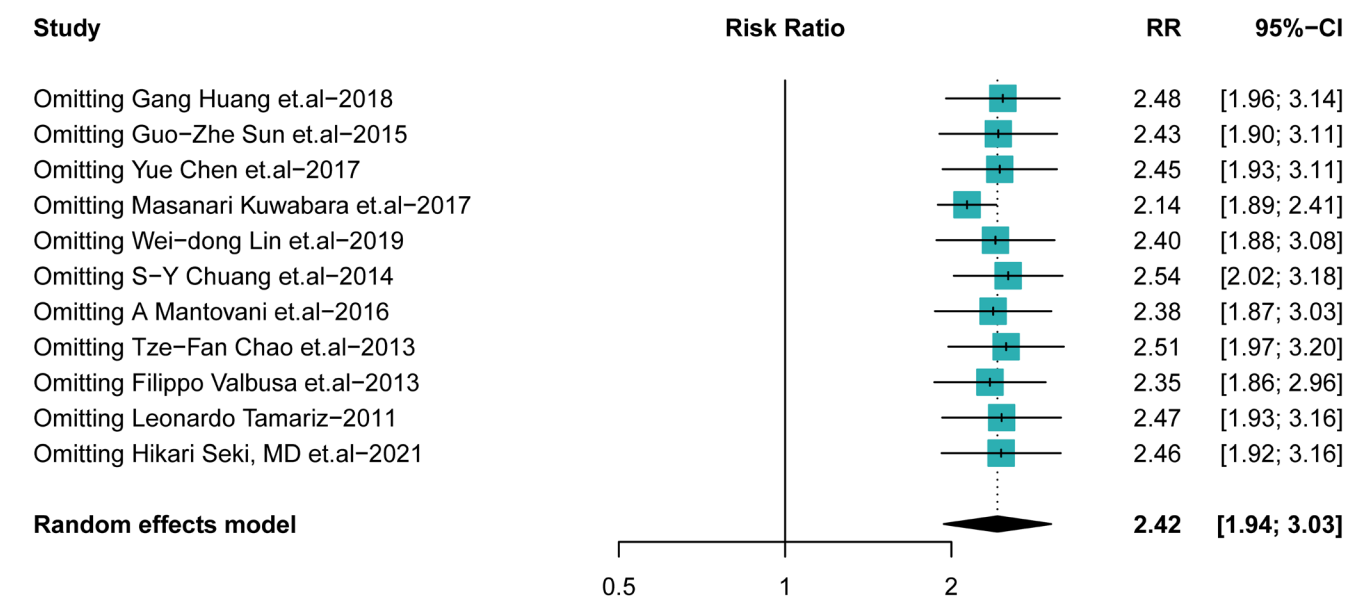


s Fig 4E

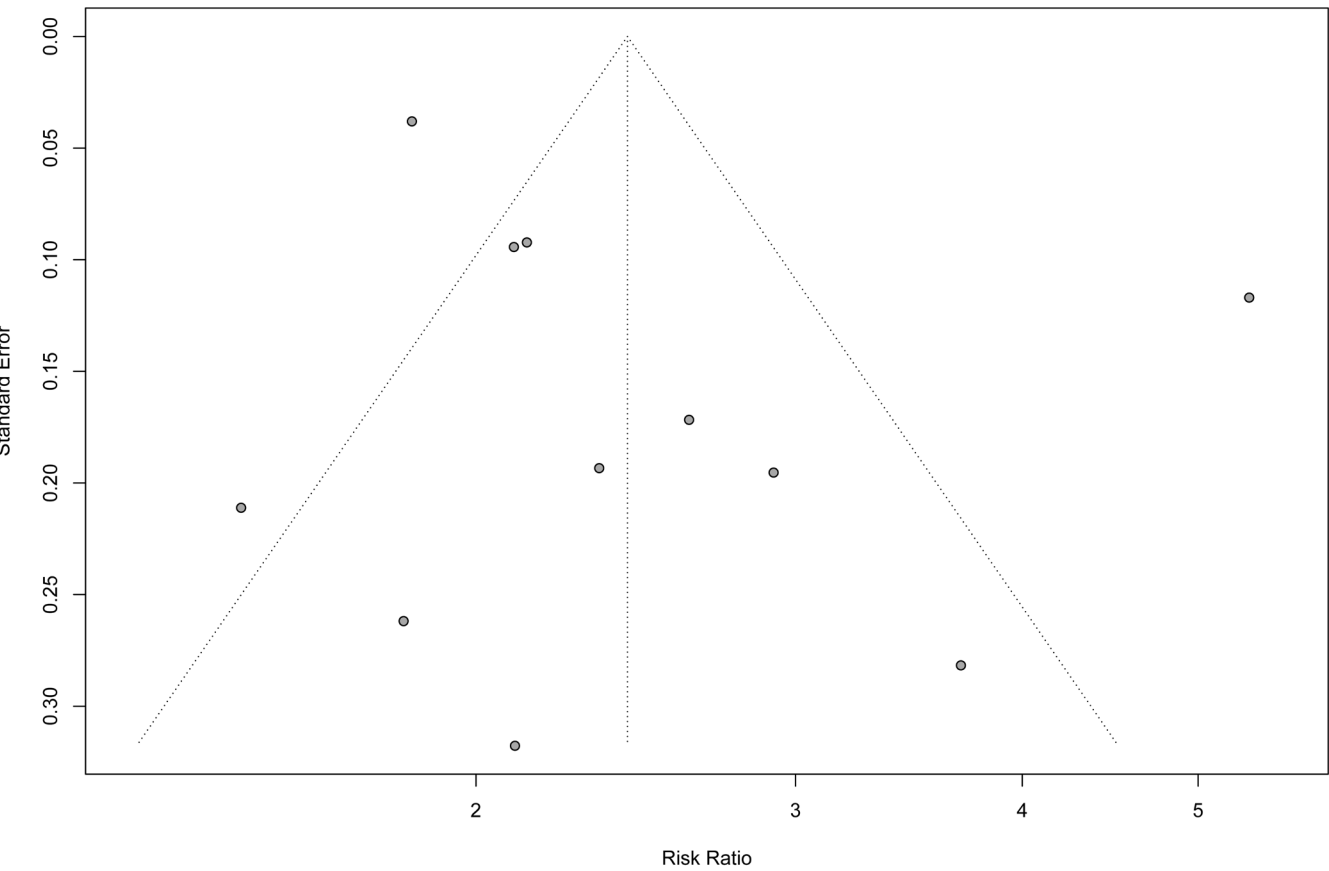


s Fig 4F

s Fig 5. Sensitivity analysis.



s Fig 6. Deek's funnel plot



s Fig 7 Peter's test.

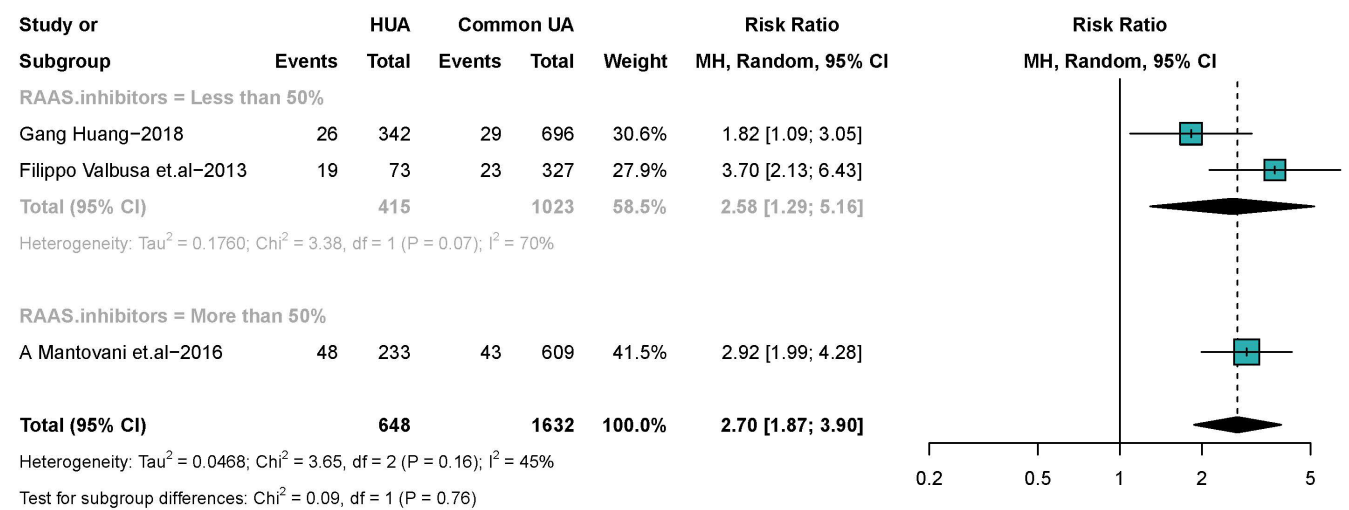
Linear regression test of funnel plot asymmetry

Test result: t = 1.45, df = 9, p-value = 0.1824

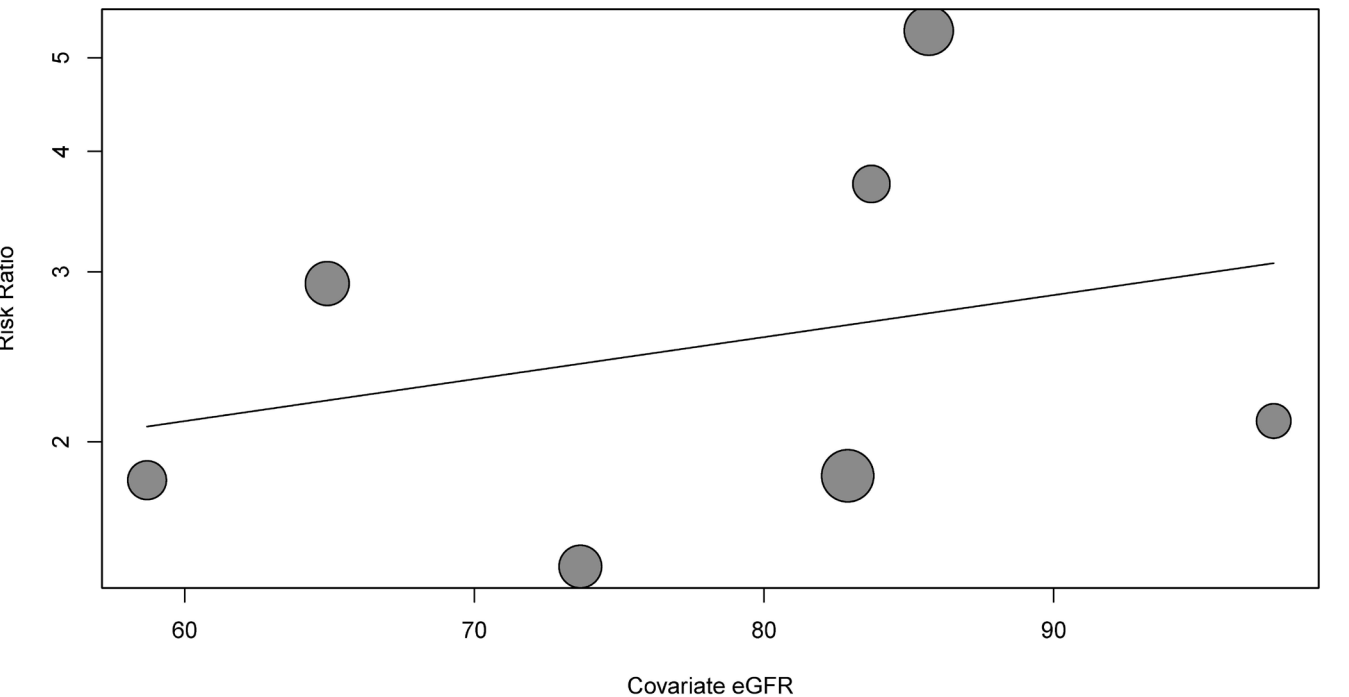
Sample estimates:
bias se.bias intercept se.intercept
1.9607 1.3568 0.5881 0.1332

- Details:
- multiplicative residual heterogeneity variance ($\tau^2 = 7.8565$)
 - predictor: standard error
 - weight: inverse variance
 - reference: Egger et al. (1997), BMJ

s Fig 8 Subgroup analysis for RAAS blocker users of more or less than 50%.



s Fig 9 Meta-regression of eGFR



s Table 1. Sensitivity analysis.

Influential analysis (Random effects model)			
Risk ratio			
	RR	95%-CI	
Omitting Gang Huang et.al-2018	2.4792	[1.9557; 3.1428]	
Omitting Guo-Zhe Sun et.al-2015	2.4322	[1.9030; 3.1087]	
Omitting Yue Chen et.al-2017	2.4472	[1.9287; 3.1051]	
Omitting Masanari Kuwabara et.al-2017	2.1354	[1.8904; 2.4122]	
Omitting Wei-dong Lin et.al-2019	2.4043	[1.8797; 3.0753]	
Omitting S-Y Chuang et.al-2014	2.5350	[2.0213; 3.1794]	
Omitting A Mantovani et.al-2016	2.3806	[1.8678; 3.0342]	
Omitting Tze-Fan Chao et.al-2013	2.5127	[1.9749; 3.1970]	
Omitting Filippo Valbusa et.al-2013	2.3492	[1.8628; 2.9627]	
Omitting Leonardo Tamariz-2011	2.4665	[1.9251; 3.1600]	
Omitting Hikari Seki, MD et.al-2021	2.4616	[1.9201; 3.1558]	
Pooled estimate	2.4239	[1.9383; 3.0311]	
	p-value	tau ²	tau
Omitting Gang Huang et.al-2018	< 0.0001	0.1156	0.3400
Omitting Guo-Zhe Sun et.al-2015	< 0.0001	0.1232	0.3511
Omitting Yue Chen et.al-2017	< 0.0001	0.1184	0.3441
Omitting Masanari Kuwabara et.al-2017	< 0.0001	0.0145	0.1202
Omitting Wei-dong Lin et.al-2019	< 0.0001	0.1234	0.3513
Omitting S-Y Chuang et.al-2014	< 0.0001	0.1015	0.3186
Omitting A Mantovani et.al-2016	< 0.0001	0.1199	0.3462
Omitting Tze-Fan Chao et.al-2013	< 0.0001	0.1133	0.3365
Omitting Filippo Valbusa et.al-2013	< 0.0001	0.1101	0.3318
Omitting Leonardo Tamariz-2011	< 0.0001	0.1229	0.3506
Omitting Hikari Seki, MD et.al-2021	< 0.0001	0.1237	0.3517
Pooled estimate	< 0.0001	0.1097	0.3312
Heterogeneity	I²		
Omitting Gang Huang et.al-2018	89.6%		
Omitting Guo-Zhe Sun et.al-2015	89.6%		
Omitting Yue Chen et.al-2017	89.7%		
Omitting Masanari Kuwabara et.al-2017	52.0%		
Omitting Wei-dong Lin et.al-2019	89.5%		
Omitting S-Y Chuang et.al-2014	89.3%		
Omitting A Mantovani et.al-2016	89.3%		
Omitting Tze-Fan Chao et.al-2013	84.7%		
Omitting Filippo Valbusa et.al-2013	89.2%		
Omitting Leonardo Tamariz-2011	89.7%		
Omitting Hikari Seki, MD et.al-2021	89.7%		
Pooled estimate	88.5%		
Details on meta-analytical method:			
- Mantel-Haenszel method			
- Restricted maximum-likelihood estimator for tau ²			

s Appendix 1. Search strategy.

Search strategy

Number	
#1	Atheromatous Plaques 【Title/Abstract】
#2	Acid, Uric 【Title/Abstract】
#3	2,6,8-Trihydroxypurine 【Title/Abstract】
#4	Trioxopurine 【Title/Abstract】
#5	Potassium Urate 【Title/Abstract】
#6	Urate, Potassium 【Title/Abstract】
#7	Urate 【Title/Abstract】
#8	Ammonium Acid Urate 【Title/Abstract】
#9	Acid Urate, Ammonium 【Title/Abstract】
#10	Urate, Ammonium Acid 【Title/Abstract】
#11	Sodium Urate Monohydrate 【Title/Abstract】
#12	Monohydrate, Sodium Urate 【Title/Abstract】
#13	Urate Monohydrate, Sodium 【Title/Abstract】
#14	Monosodium Urate Monohydrate 【Title/Abstract】
#15	Monohydrate, Monosodium Urate 【Title/Abstract】
#16	Urate Monohydrate, Monosodium 【Title/Abstract】
#17	Sodium Acid Urate Monohydrate 【Title/Abstract】
#18	Sodium Urate 【Title/Abstract】
#19	Urate, Sodium 【Title/Abstract】
#20	Monosodium Urate 【Title/Abstract】
#21	Urate, Monosodium 【Title/Abstract】
#22	Sodium Acid Urate 【Title/Abstract】
#23	Acid Urate, Sodium 【Title/Abstract】
#24	Urate, Sodium Acid 【Title/Abstract】
#25	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24
#26	Atrial Fibrillations 【Title/Abstract】
#27	Fibrillation, Atrial 【Title/Abstract】
#28	Fibrillations, Atrial 【Title/Abstract】
#29	Auricular Fibrillation 【Title/Abstract】
#30	Auricular Fibrillations 【Title/Abstract】
#31	Fibrillation, Auricular 【Title/Abstract】
#32	Fibrillations, Auricular 【Title/Abstract】
#33	Persistent Atrial Fibrillation 【Title/Abstract】
#34	Atrial Fibrillation, Persistent 【Title/Abstract】
#35	Atrial Fibrillations, Persistent 【Title/Abstract】
#36	Fibrillation, Persistent Atrial 【Title/Abstract】
#37	Fibrillations, Persistent Atrial 【Title/Abstract】
#38	Persistent Atrial Fibrillations 【Title/Abstract】
#39	Familial Atrial Fibrillation 【Title/Abstract】
#40	Atrial Fibrillation, Familial 【Title/Abstract】
#41	Atrial Fibrillations, Familial 【Title/Abstract】
#42	Familial Atrial Fibrillations 【Title/Abstract】
#43	Fibrillation, Familial Atrial 【Title/Abstract】
#44	Fibrillations, Familial Atrial 【Title/Abstract】
#45	Paroxysmal Atrial Fibrillation 【Title/Abstract】
#46	Atrial Fibrillation, Paroxysmal 【Title/Abstract】
#47	Atrial Fibrillations, Paroxysmal 【Title/Abstract】
#48	Fibrillation, Paroxysmal Atrial 【Title/Abstract】
#49	Fibrillations, Paroxysmal Atrial 【Title/Abstract】

#50	Paroxysmal Atrial Fibrillations 【Title/Abstract】
#51	#26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50
#52	Metabolic disorder 【Title/Abstract】
#53	endocrine disorder 【Title/Abstract】
#54	#52 or #53
#55	#25 or #54
#56	#55 or #51

Legends:

s Fig 1 summarizes qualities of literatures included in the present review.

s Fig 2 describes risk of biases in each study included.

s Fig 3 describe the meta-regression details of the current drinker's ratio in R studio work station.

s Fig 4A~4F are meta-regression curves of covariates; A, meta-regression of uric acid; B, meta-regression of smoking; C, meta-regression of male proportion; D, meta-regression of BMI; E, meta-regression of current drinking; F, meta-regression of average age.

s Fig 5 is a forest plot of sensitivity analysis of the main outcome.

s Fig 6 intuitively reflects the publication bias.

s Fig 7 linearly quantifies publication bias.

s Fig 8 is the subgroup analysis for RAAS blocker users of more or less than 50%.

S Fig 9 is the meta-regression curve of estimated glomerular filtration rate eGFR

s Table 1 shows details of sensitivity analysis

s Appendix 1 is a comprehensive description of the retrieval strategy used in article identifying.