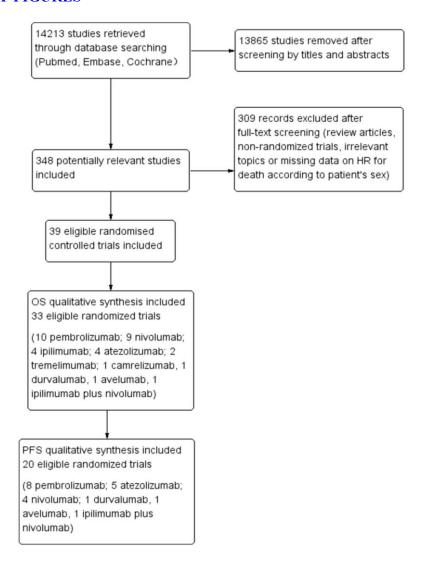
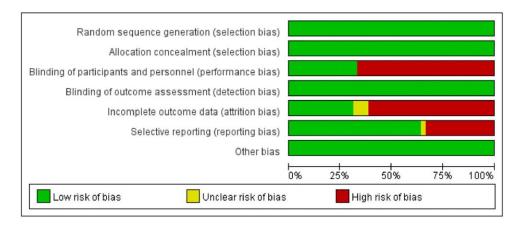
SUPPLEMENTARY FIGURES



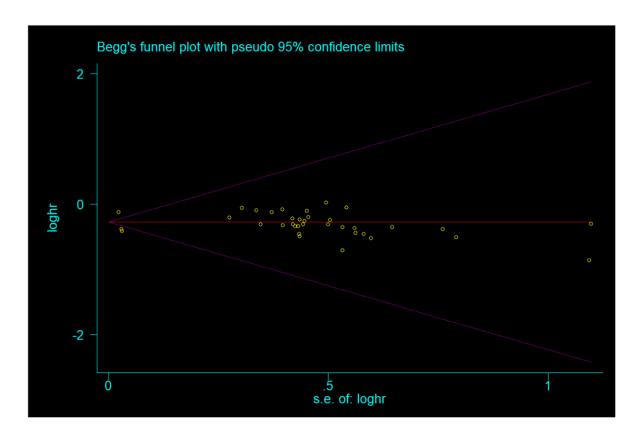
Supplementary Figure 1. The research selection flowchart of this study.



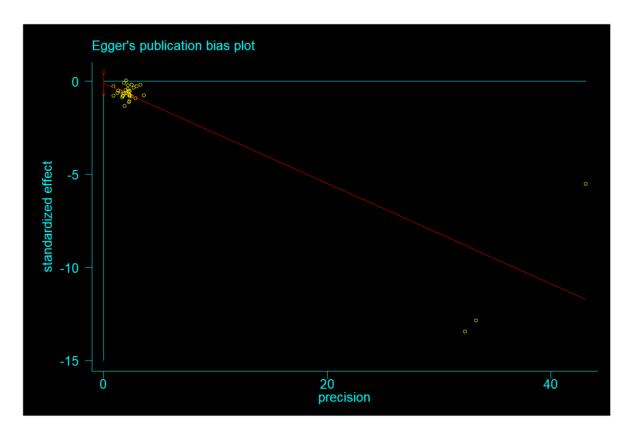
Supplementary Figure 2. Risk of bias graph: judgements about each risk of bias item presented as percentages across all included studies.

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Offner bias
Antonia et al(2018)	•	•	•	•		•	
Ascierto et al(2019)	•	•	•	•	?		•
Barlesi et al((2018)	•	•		•		•	•
Bellmunt et al(2017)	•	•		•	•	•	
Borghaei et al(2015)	•	•		•	•	•	•
Brahmer et al(2015)	•	•		•		•	•
Carbone et al(2017)	•	•		•			•
Cohen et al(2018)	•	•	•	•	•	•	•
Ferris et al(2016)	•	•		•	•	•	
Finn et al(2019)	•	•	•	•	?	•	•
Gandhi et al(2018)	•	•	•	•		•	
Govindan et al(2017)	•	•	•	•			
Hellmann et al(2018)	•	•		•	•	•	
Herbst et al(2016)	•	•		•	•	•	•
Hodi et al(2010)	•	•	•	•			
Hodi et al(2016)	•	•	•	•		•	•
Horn et al(2018)	•	•	•	•			
Huang et al(2020)	•	•		•			•
Jotte et al(2020)	•	•		•	•	•	•
Kang et al(2017)	•	•	•	•	3	•	•
Kato et al(2019)	•	•		•		•	•
Larkin et al(2018)	•	•		•			•
Maio et al(2017)	•	•	•	•	•	•	•
Mok et al(2019)	•	•		•	•	•	•
Motzer et al(2015)	•	•		•		•	•
Motzer et al(2019)	•	•		•			•
Papadimitrak-opoulou et al(2018)	•	•		•		•	•
Paz-Ares et al(2018)	•	•	•	•			•
Reck et al(2016)(1)			•	•			•
Reck et al(2016)(2)	•	•		•	0		•
Ribas et al(2013)	-	-		-	-	-	-
Ribas et al(2015)	-					-	-
Rittmeyer et al(2017)		=		-			-
Robert et al (2011)	-		-			3	-
Robert et al(2015)(1)	•					=	
Robert et al(2015)(2)	-						
Shitara et al(2018)	•						
Socinski et al(2018) West et al(2019)	-						
vvest et ai(2019)							

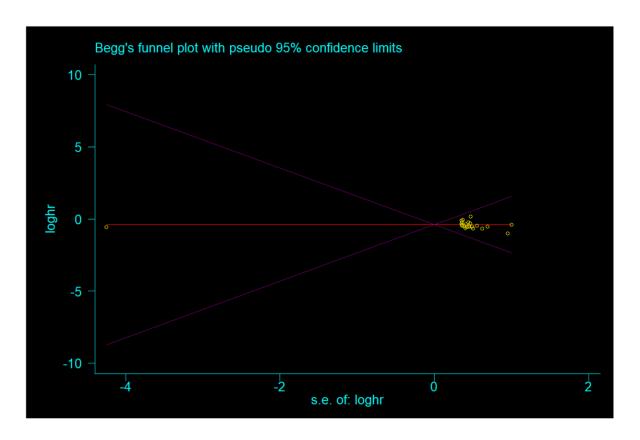
Supplementary Figure 3. Risk of bias summary: judgements about each risk of bias item for each included study.



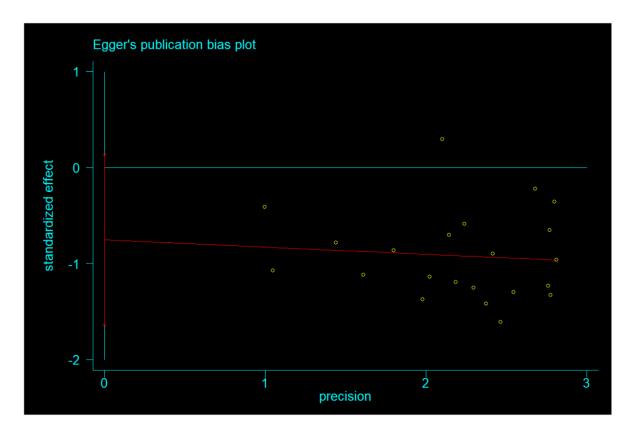
Supplementary Figure 4. The Begg's funnel plot of OS for visual inspection.



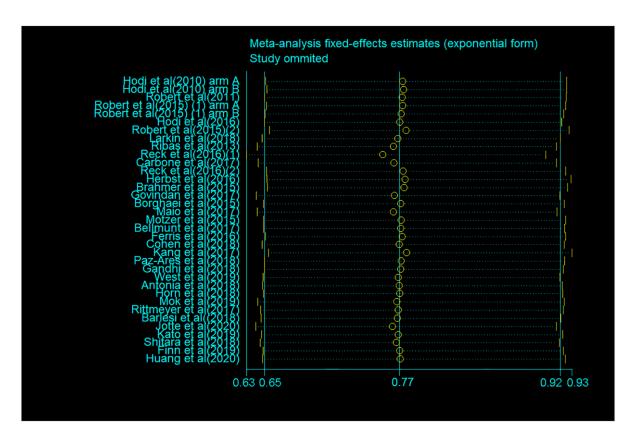
Supplementary Figure 5. The Egger's funnel plot of OS for visual inspection.



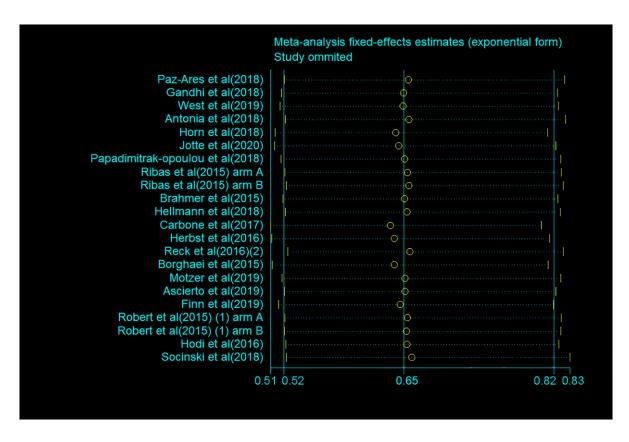
Supplementary Figure 6. The Begg's funnel plot of PFS for visual inspection.



Supplementary Figure 7. The Egger's funnel plot of PFS for visual inspection.



Supplementary Figure 8. Sensitivity analysis using OS as the endpoint of the study.



Supplementary Figure 9. Sensitivity analysis using PFS as the endpoint of the study.