

Supplementary Table S1. Risk of Bias in Non-randomized Studies of Interventions (ROBINS-I).

Study		Pre-intervention		At Intervention	Post-intervention			Overall risk of bias	
First Author	Year	Bias due to confounding	Bias in selection of participants into the study	Bias in classification of interventions	Bias due to deviations from intended interventions	Bias due to missing data	Bias in measurement of outcomes	Bias in selection of the reported result	Low/moderate/serious/critical
Al – Tawfiq	2010	critical	low	low	serious	low	low	low	critical
Bouadma	2010	moderate	low	low	low	low	low	low	moderate
Bird	2010	critical	low	low	low	low	critical	low	critical
Ban	2011	low	low	moderate	moderate	low	moderate	moderate	moderate
Berenholtz	2011	critical	low	low	low	low	critical	low	critical
Morris	2011	low	low	low	moderate	low	moderate	low	moderate
Moore	2012	critical	low	low	low	low	low	low	critical
Gatell	2012	low	low	low	moderate	low	low	low	moderate
Gallagher	2012	low	low	low	moderate	low	low	low	moderate
Guanche – Garcel	2013	low	low	low	moderate	low	low	low	moderate
Leblebicioglu	2013	low	low	low	moderate	low	low	low	moderate
Mehta	2013	low	low	low	moderate	low	low	low	moderate
Micik	2013	critical	low	low	serious	low	critical	critical	critical
Viana	2013	low	low	low	moderate	low	low	low	moderate
Chen	2014	low	low	low	low	low	low	low	low
Dosher	2014	moderate	low	low	low	low	low	low	moderate
Eom	2014	low	low	low	low	low	low	low	low
Righi	2014	low	low	low	low	low	moderate	low	moderate
Ismail	2015	low	low	low	low	low	moderate	low	moderate
Lim	2015	moderate	low	low	serious	low	low	low	serious
Zeng	2015	low	low	low	serious	low	moderate	low	serious
Alcan	2016	low	low	low	low	low	moderate	low	moderate
Khan	2016	low	low	low	low	low	low	low	low
Mogyorodi	2016	low	low	low	low	low	low	low	low
Marini	2016	serious	low	low	low	low	moderate	low	serious
Parisi	2016	low	low	low	serious	low	moderate	low	serious
Alvarez – Lerma	2018	low	low	low	moderate	low	moderate	moderate	moderate
Burja	2018	low	low	low	low	low	moderate	low	moderate
Landelle	2018	low	low	low	low	low	low	low	low
Kao	2019	moderate	low	low	low	low	low	low	moderate
Cengiz	2019	low	low	low	low	low	low	low	low
Sousa	2019	low	low	low	low	low	low	low	low
Branco	2020	serious	low	low	critical	low	low	low	critical
Fortaleza	2020	moderate	low	low	serious	low	moderate	low	serious
Liu	2020	low	low	low	moderate	low	moderate	low	moderate
Michelangelo	2020	low	low	low	moderate	low	moderate	low	moderate
Ochoa – Hein	2020	moderate	low	low	moderate	low	low	low	moderate
Shaban	2021	low	low	low	moderate	low	moderate	low	moderate