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Supplementary figure legends

Supplementary figure 1: Risk of bias summary – RCTs

Supplementary figure 2: Risk of bias summary – cohort studies

Supplementary Figure 3: Forest plots for secondary outcomes – mortality domain: hospital mortality

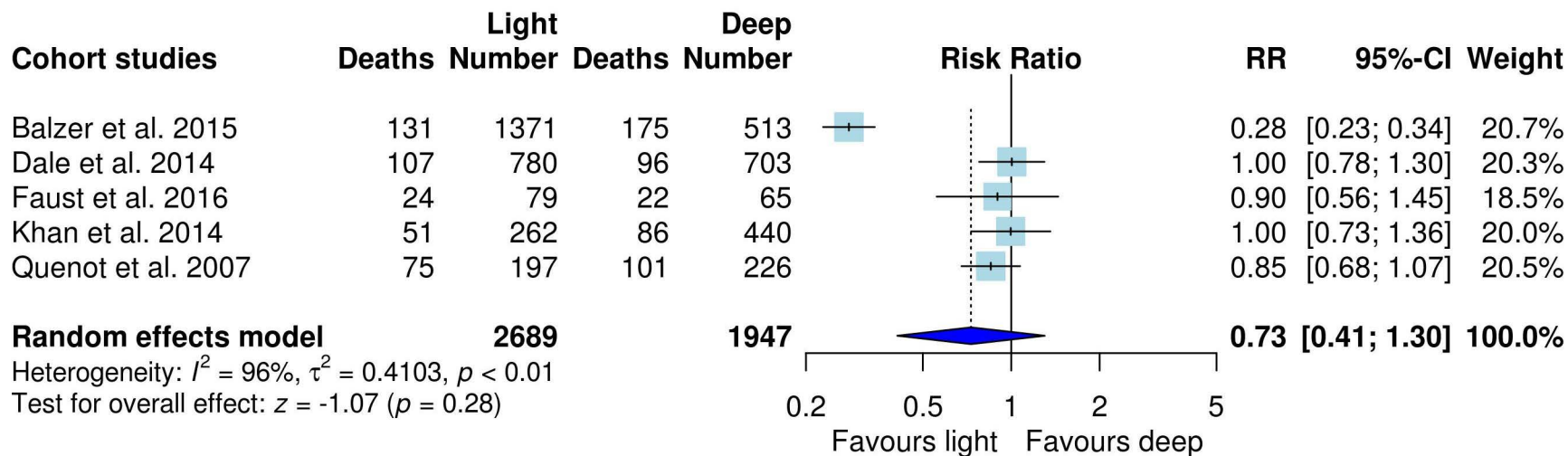
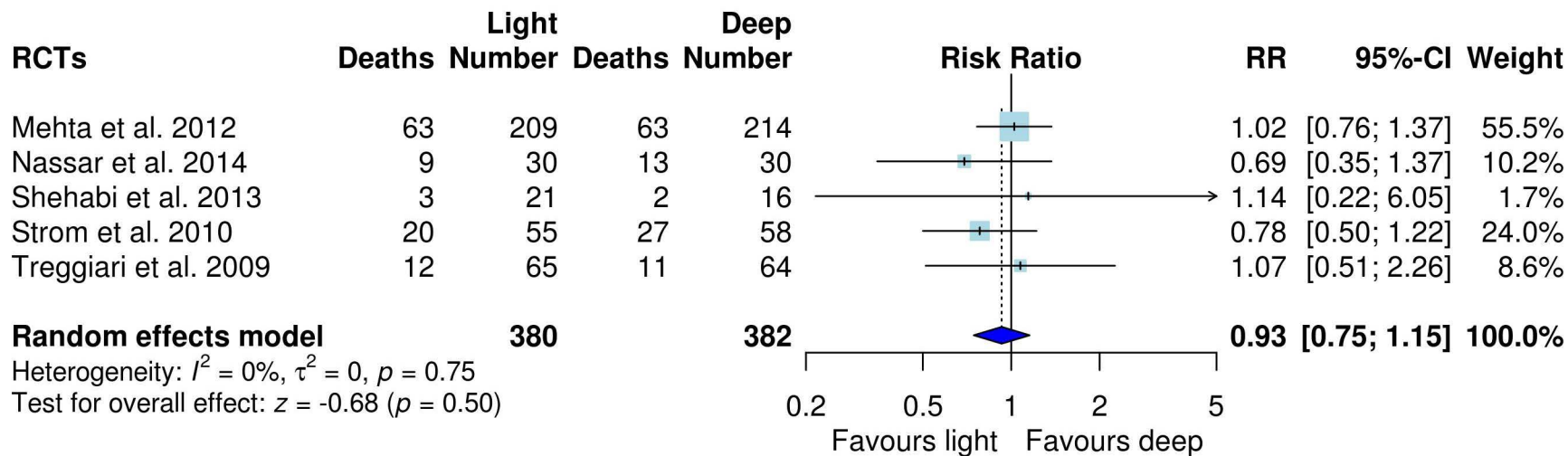
Supplementary Figure 4: Forest plots for secondary outcomes – physiological domain: a) time to extubation; b) ventilator free days to day 28; c) delirium

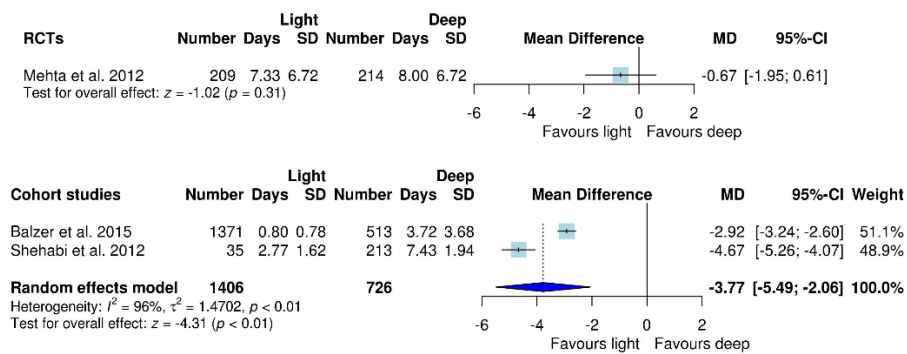
Supplementary Figure 5: Forest plots – secondary outcomes – resource use domain: a) ICU LOS; b) hospital LOS; c) tracheostomies

Supplementary Figure 6: Forest plots – secondary outcomes – adverse events domain: a) self-extubation; b) re-intubation; c) Ventilator associated pneumonia

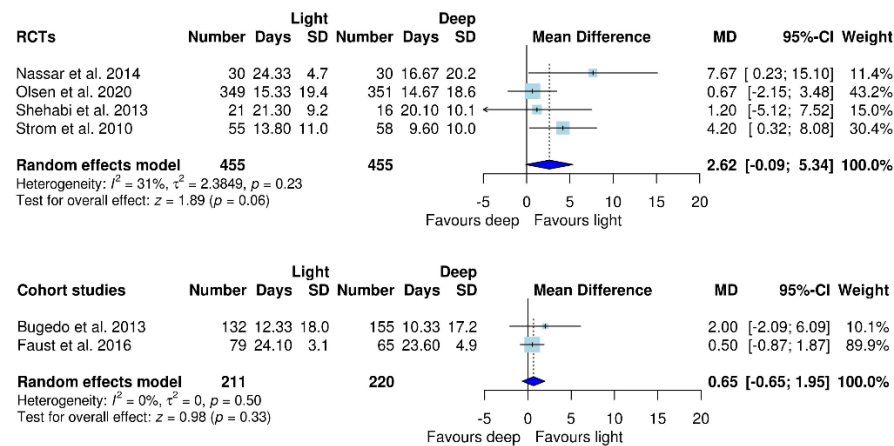
	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)
Mehta 2012						
Nassar Junior 2014						
Olsen 2020						
Samuelson 2008						
Shehabi 2013						
Strom 2010						
Strom 2011						
Treggiari 2009						

	Method of recruitment (selection bias)	Measurement of depth of sedation bias	Outcome assessment (detection bias)	Important confounding factors (bias)	Length & Completeness of follow-up (attrition bias)	Other bias
Arabi 2007	+	+	-	-	?	-
Balzer 2015	+	+	-	?	+	?
Bugedo 2013	?	+	-	-	+	+
Burry 2015	?	+	+	+	-	+
Capuzzo 2001	+	-	-	?	+	+
Costa 2014	+	-	-	-	-	+
Dale 2014	+	+	-	+	+	+
Faust 2016	+	+	-	?	+	+
Guttormson 2011	-	-	-	?	-	?
Khan 2014	+	+	-	?	+	+
Mendes 2008	?	+	-	-	+	+
Quenot 2007	+	-	-	?	+	+
Ren 2017	?	-	-	-	+	+
Samuelson 2006	+	-	+	?	+	+
Samuelson 2007	+	-	+	?	+	+
Sen 2017	+	+	-	?	+	-
Shehabi 2012	?	+	-	+	+	?
Shehabi 2018	?	?	-	?	+	+

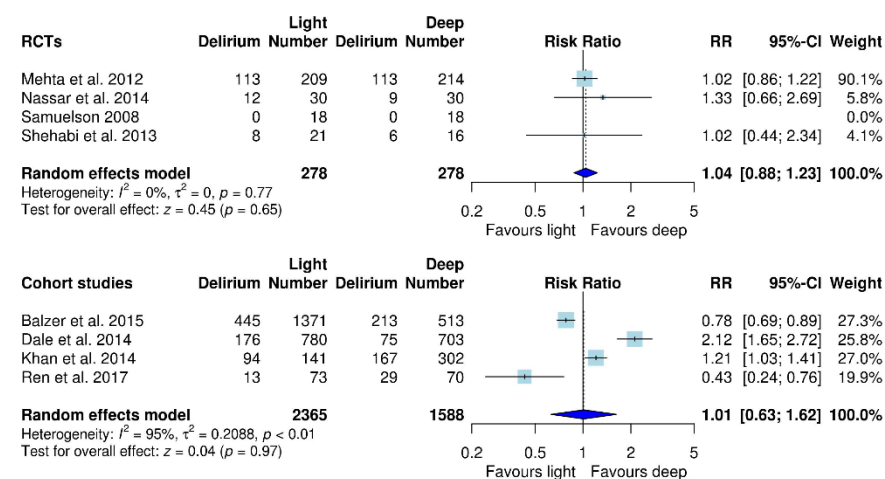




a)



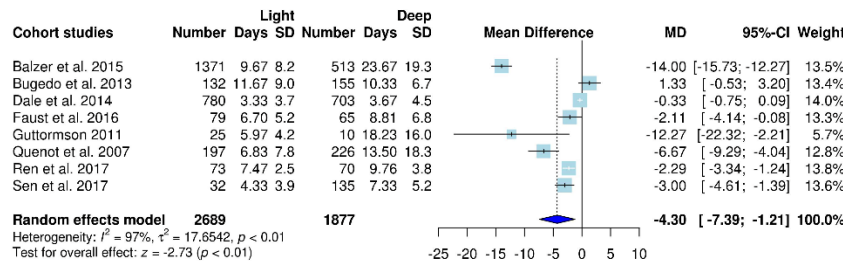
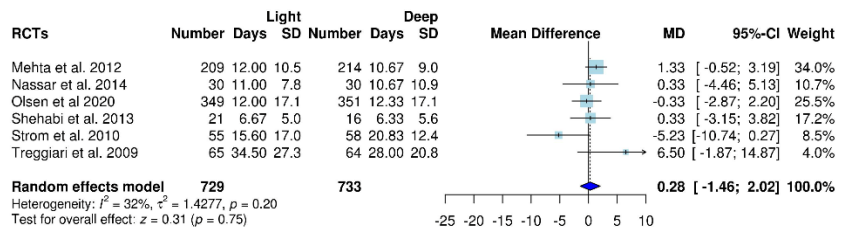
b)



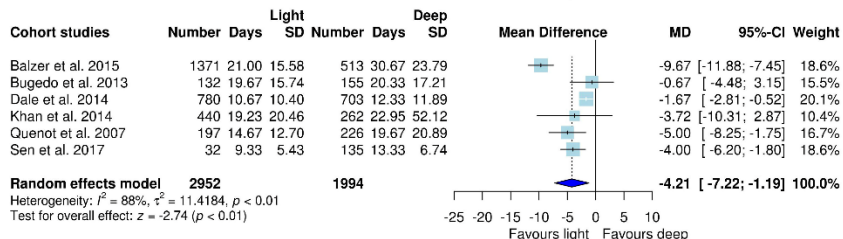
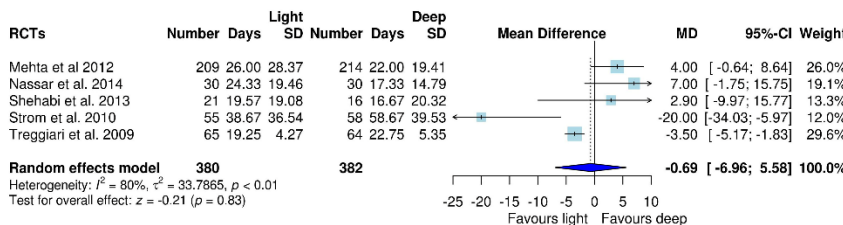
c)

Supplementary Figure 4: Forest plots for secondary outcomes – physiological domain: a) time to extubation; b) ventilator free days to day 28 (VFD28); c) delirium

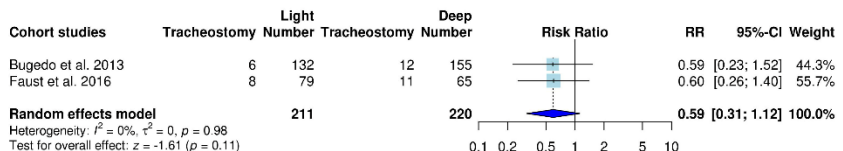
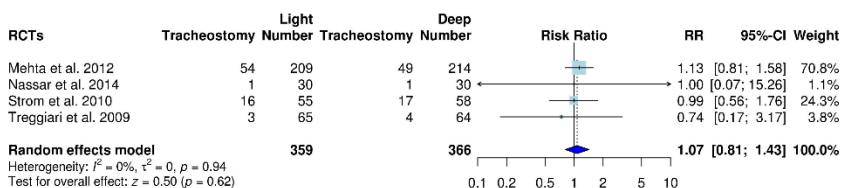
Note: data converted from median/IRQ to mean/SD¹² – time to extubation in the following studies: Balzer et al 2015; Mehta et al 2012; Shehabi et al 2012; VFD28 in the following studies: Bugedo et al 2013; Nassar Jr et al 2014.



a)



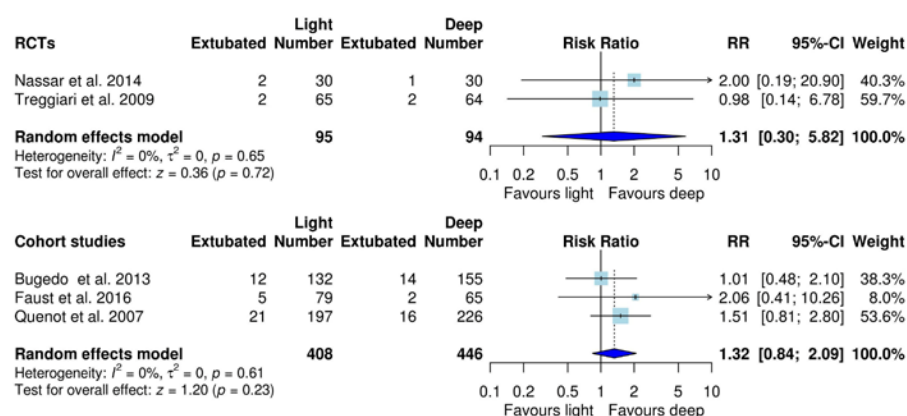
b)



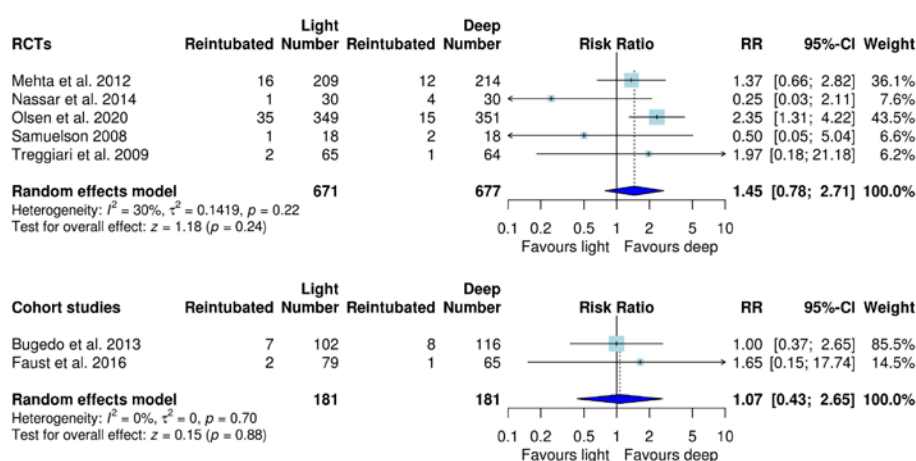
c)

Supplementary Figure 5: Forest plots – secondary outcomes – resource use domain: a) ICU LOS; b) hospital LOS; c) tracheostomies

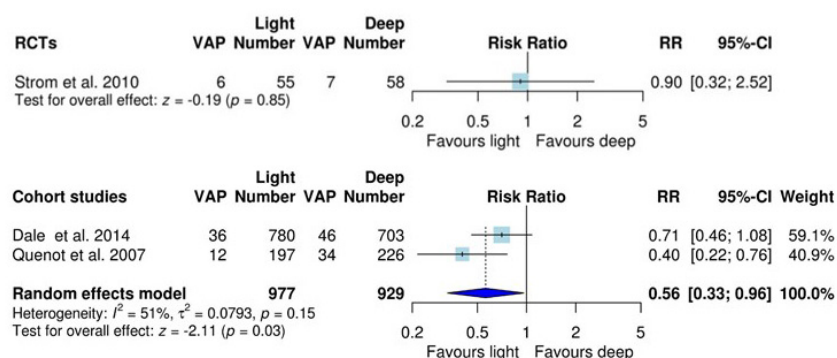
Note: data converted from median/IRQ to mean/SD¹² – ICU LOS& hospital LOS in the following studies: Balzer et al 2015; Bugedo et al 2013; Dale et al 2014; Guttormson et al 2011 (ICU LOS only); Mehta et al 2012; Nassar Jr et al 2014; Quenot et al 2007; Sen et al 2017; Shehabi et al 2013; Strom et al 2010; Treggiari et al 2009.



a)



b)



c)

Supplementary Figure 6: Forest plots – secondary outcomes – adverse events domain: a) self-extubation; b) re-intubation; c) Ventilator associated pneumonia