

	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)	Other bias
A.Eggermont 2020	+	+	+	+	+	+	+
A.Sezer 2021	+	+	+	+	+	+	?
B.Burtness 2019	+	+	+	+	+	+	?
Bang 2018	+	?	+	+	+	+	?
C.Robert 2019 q2w	+	+	+	+	+	+	?
C.Robert 2020	+	+	+	+	+	+	?
C.Robert 2020 q3w	+	+	+	+	+	+	?
Carbone 2017	+	+	+	+	+	+	?
D.R.Spigel 2021	+	+	+	+	+	+	?
D.Reardon 2020	+	?	+	+	+	+	?
E.Cohen 2019	+	?	+	+	+	+	+
E.Winer 2021	+	+	+	+	+	+	?
H.Borghaei 2020.1	+	?	+	+	+	+	?
H.Borghaei 2020.2	+	?	+	+	+	+	?
Hodi 2018	+	+	+	+	+	+	+
J.Bellmunt 2021	+	?	+	+	+	+	?
J.Huang 2020	+	+	+	+	+	+	?
J.Kuruvilla 2021	+	?	+	+	+	+	?
J.Mazieres 2020.1	+	?	+	+	+	+	?
J.Mazieres 2020.2	+	?	+	+	+	+	?
J.Pujol 2019	+	+	+	+	+	+	+
K.Kato 2019	+	+	+	+	+	+	+
K.Park 2021	+	+	+	+	+	+	?
K.Shitara 2020	+	+	+	+	+	+	?
L.Paz Ares 2020	+	+	+	+	+	+	?
L.Wu 2020	+	+	+	+	+	+	?
Larkin 2018	+	+	+	+	+	+	?
M.D.Galsky 2020	+	+	+	+	+	+	?
M.Heijden 2021	+	+	+	+	+	+	?
M.Reck 2019	+	+	+	+	+	+	?
P.Ascierio 2020	+	+	+	+	+	+	?
R.Ferris 2019	+	+	+	+	+	+	?
R.Ferris 2020	+	+	+	+	+	+	?
R.Kelly 2021	+	+	+	+	+	+	+
R.Motzer 2020	+	+	+	+	+	+	?
S.Finn 2019	+	+	+	+	+	+	+
S.Herbst 2020	+	?	+	+	+	+	?
S.Herbst 2020.1	+	?	+	+	+	+	?
S.Herbst 2020.2	+	?	+	+	+	+	?
S.Lu 2020	+	?	+	+	+	+	?
T.Andre 2020	+	?	+	+	+	+	?
T.Kojima 2020	+	+	+	+	+	+	?
T.Mok 2019	+	+	+	+	+	+	?
T.Powles 2020	+	?	+	+	+	+	?
Y.Fradet 2019	+	+	+	+	+	+	?

Figure S1. The risk of bias summary

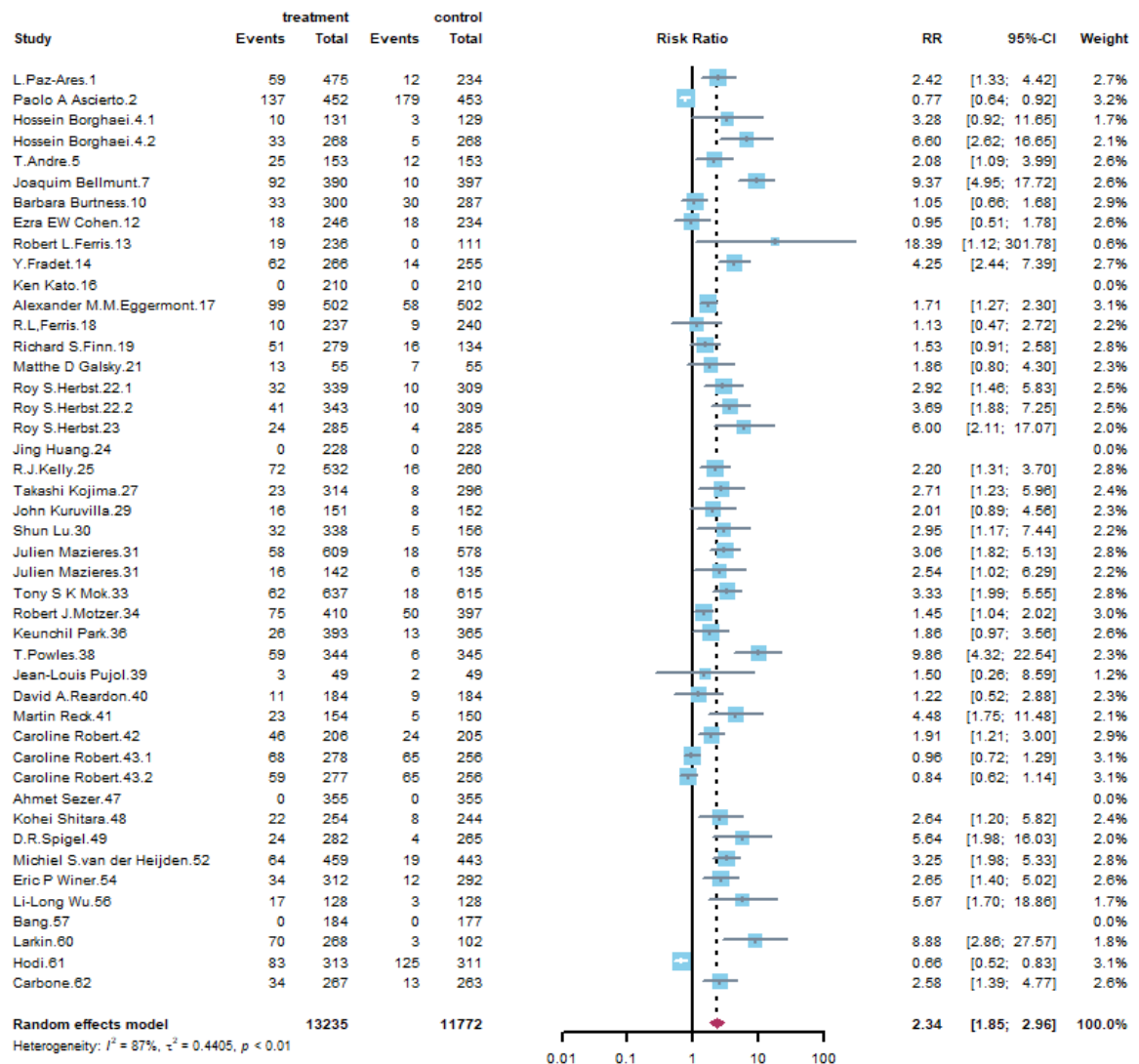


Figure S2. Forest plot of all grade pruritus for PD-1/PD-L1 inhibitors compared with control groups.

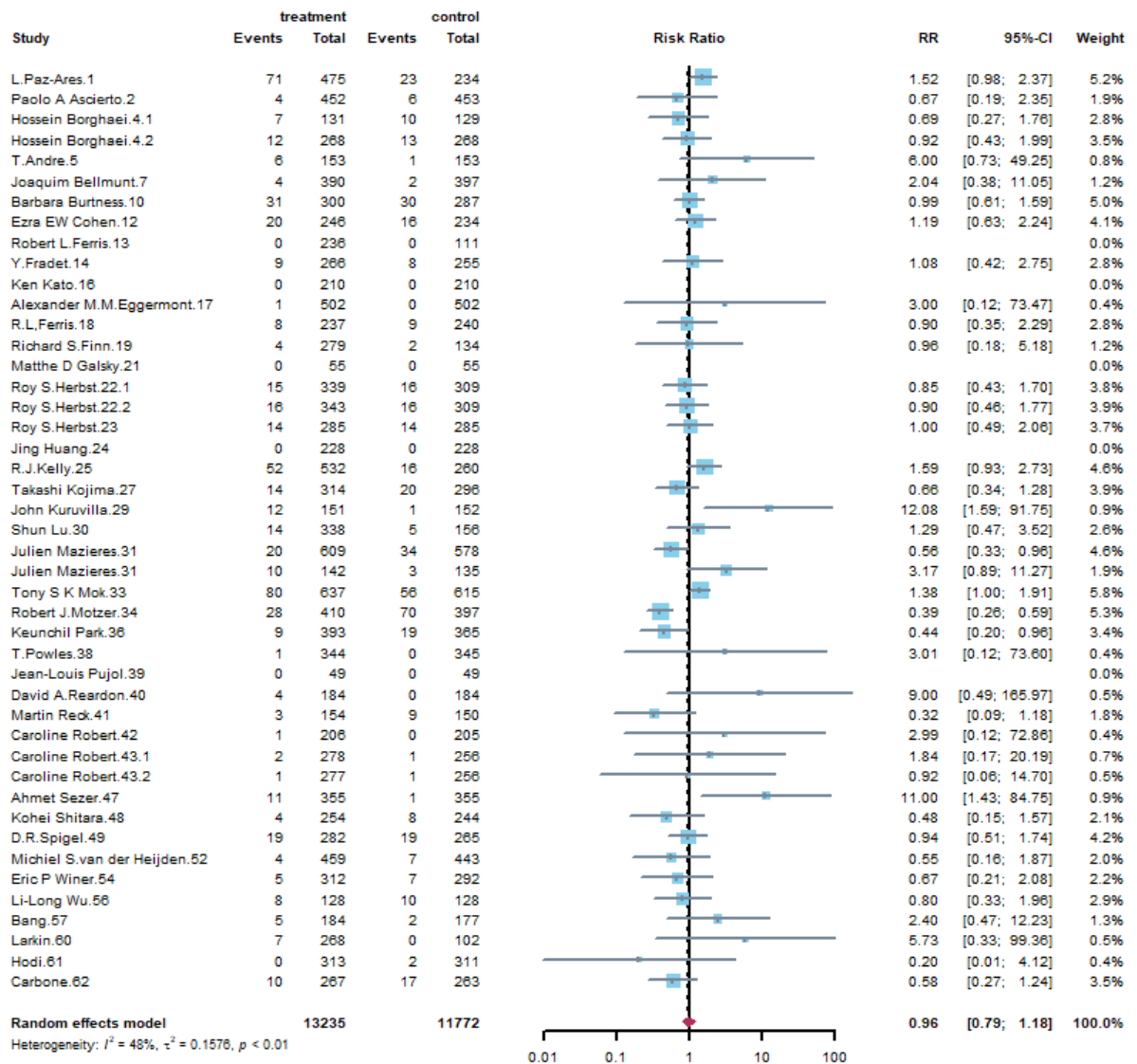


Figure S3. Forest plot of all grade pneumonia for PD-1/PD-L1 inhibitors compared with control groups.

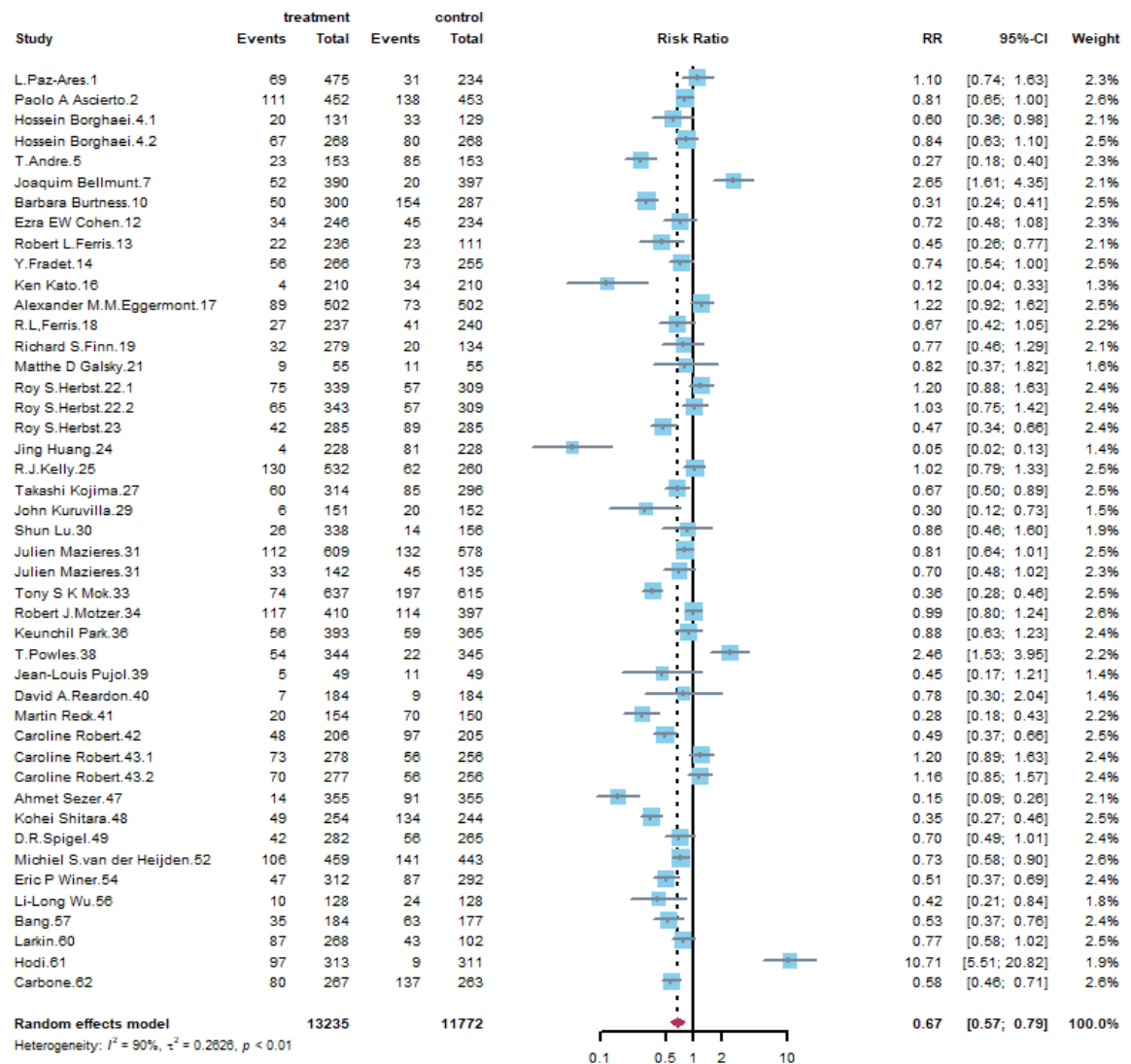


Figure S4. Forest plot of all grade nausea for PD-1/PD-L1 inhibitors compared with control groups.

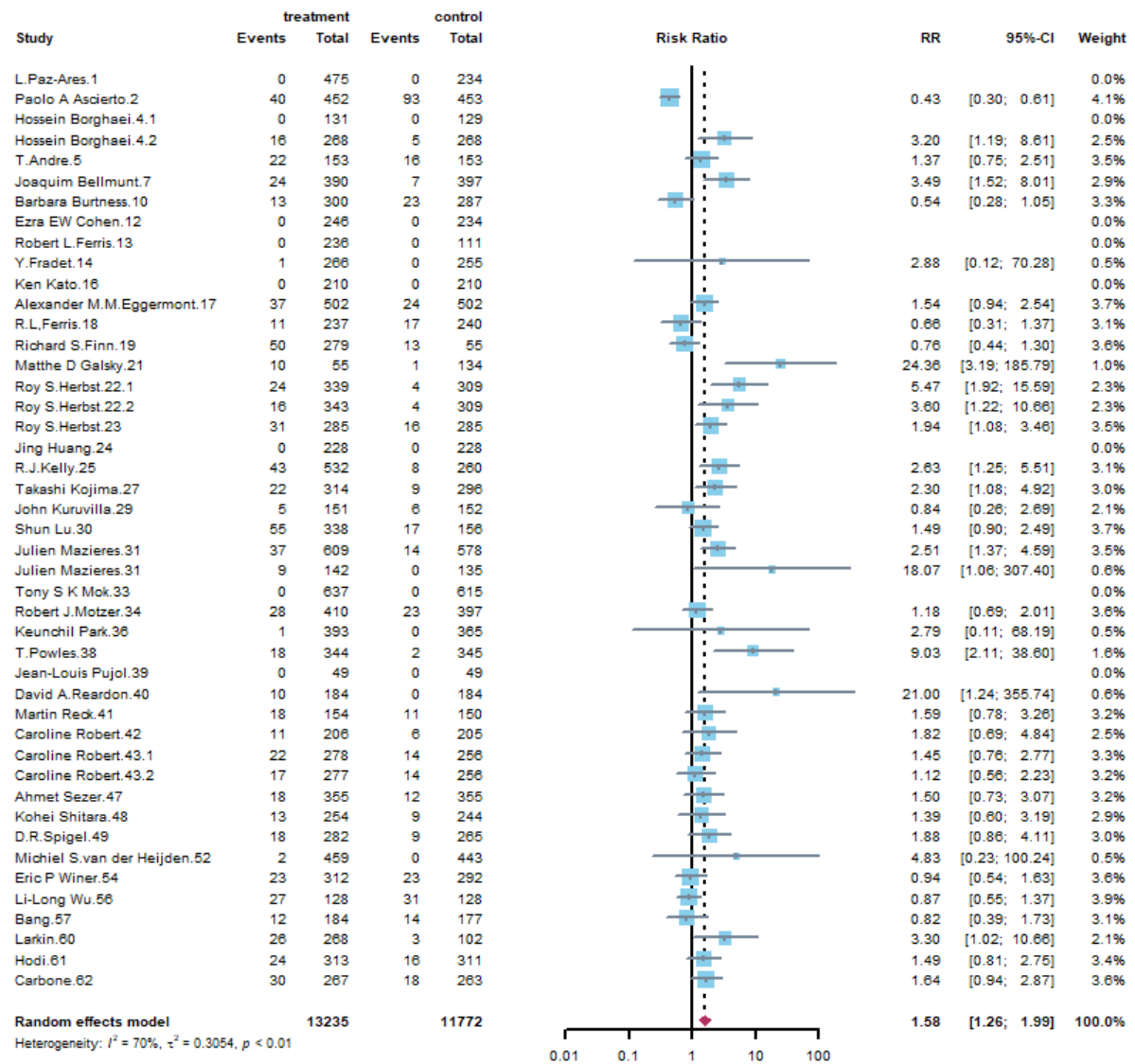


Figure S5. Forest plot of all grade ALT elevation for PD-1/PD-L1 inhibitors compared with control groups.

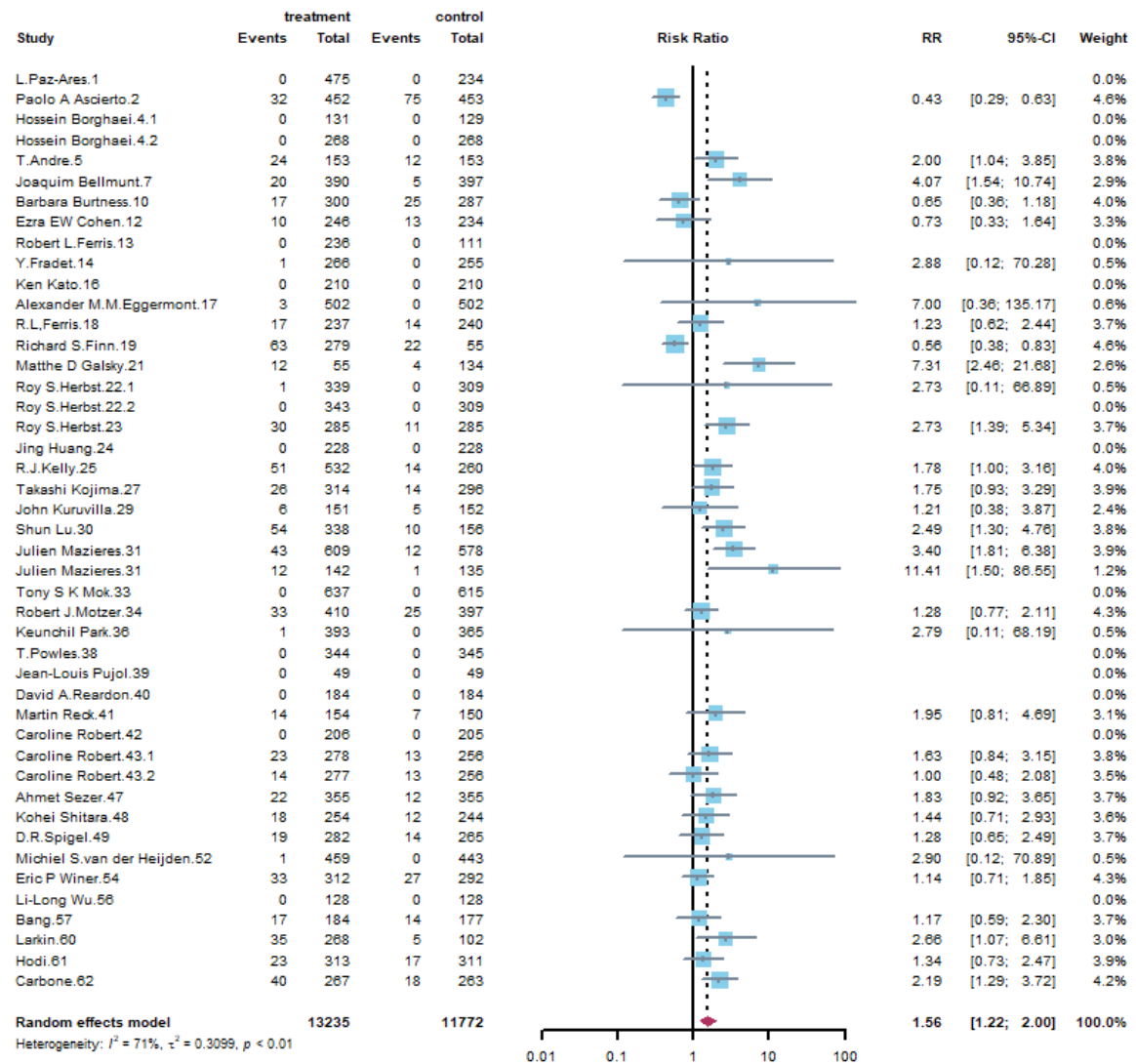


Figure S6. Forest plot of all grade AST elevation for PD-1/PD-L1 inhibitors compared with control groups.

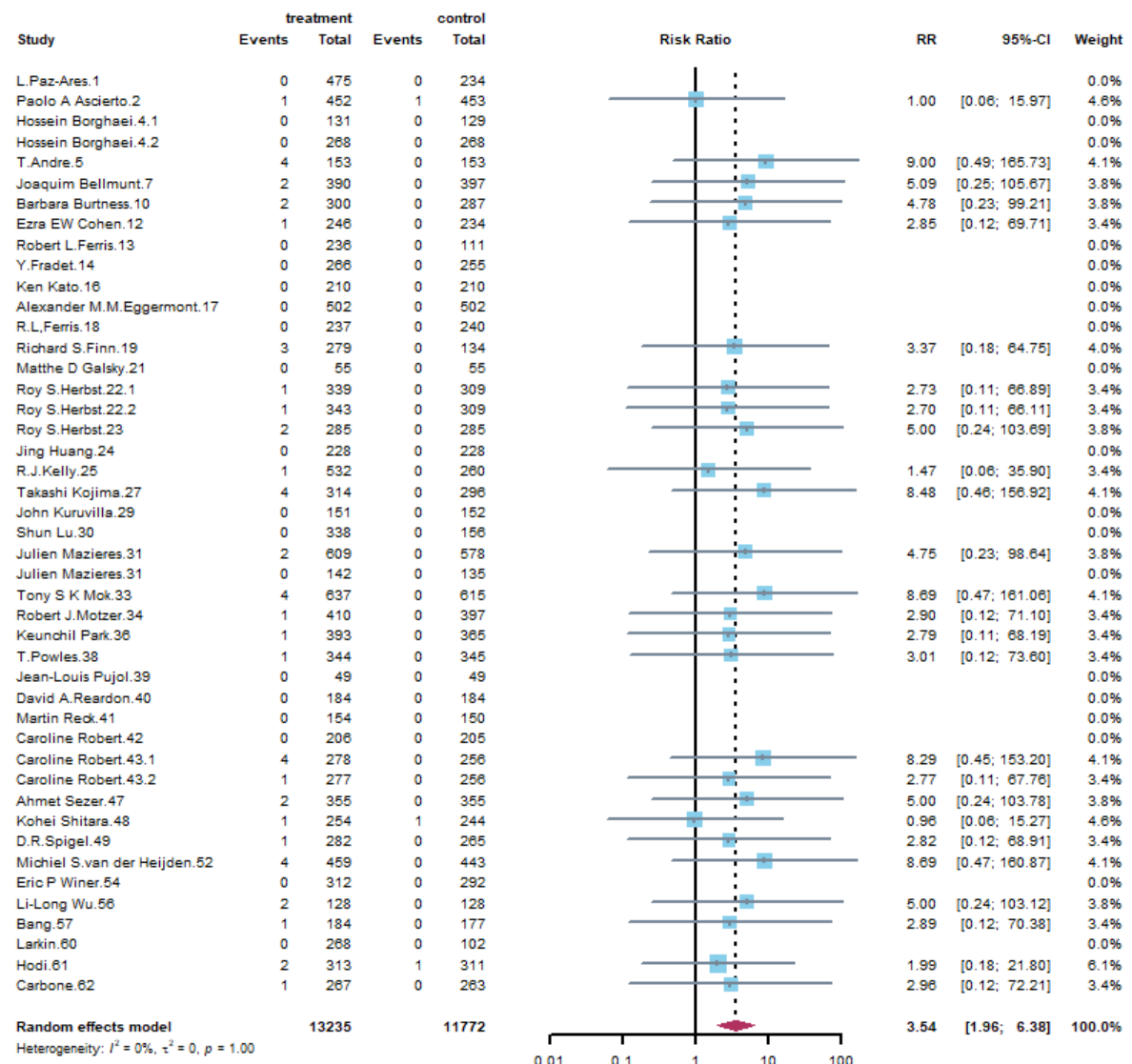


Figure S7. Forest plot of all grade hepatitis for PD-1/PD-L1 inhibitors compared with control groups.

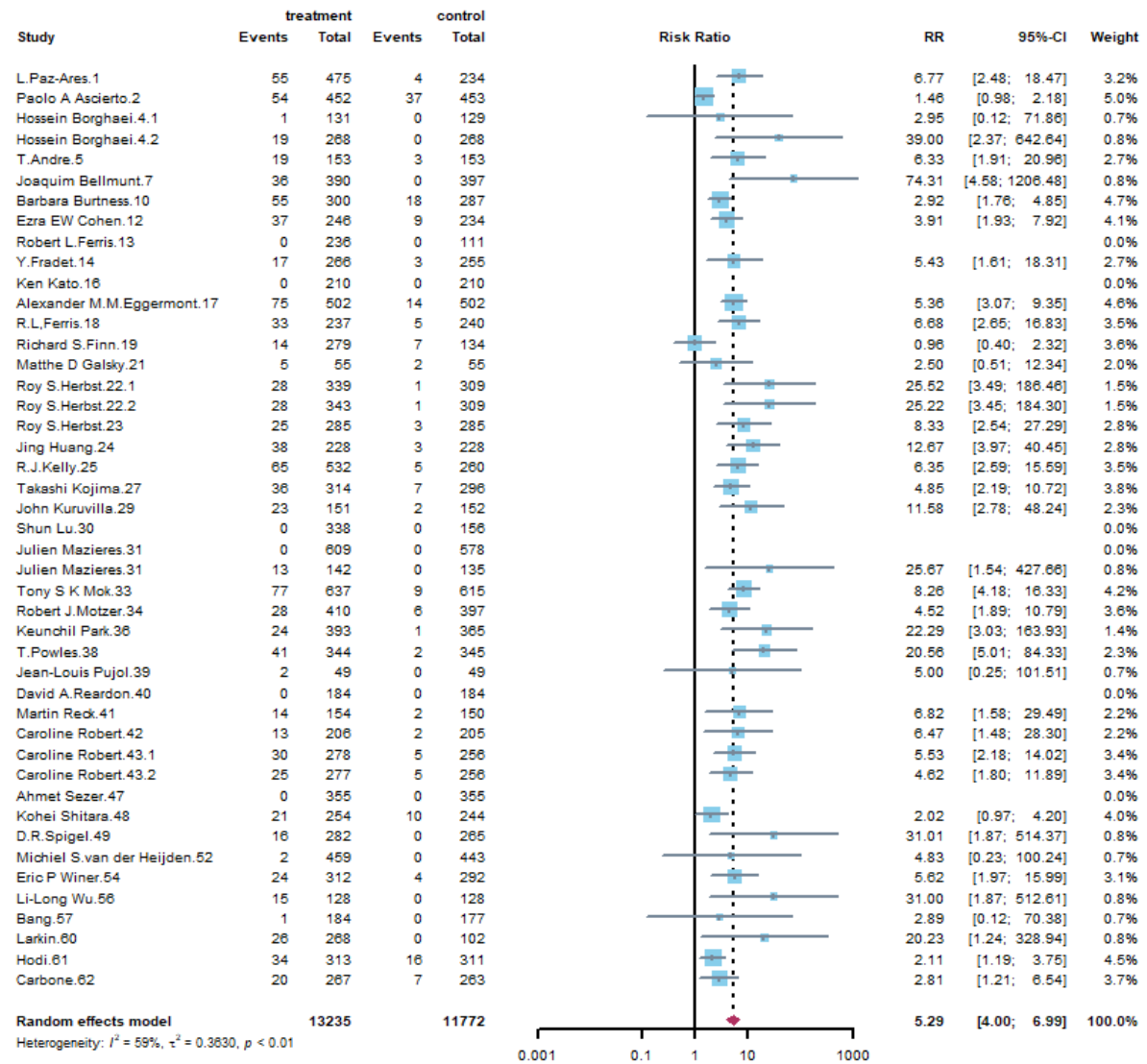


Figure S8. Forest plot of all grade hypothyroid for PD-1/PD-L1 inhibitors compared with control groups.

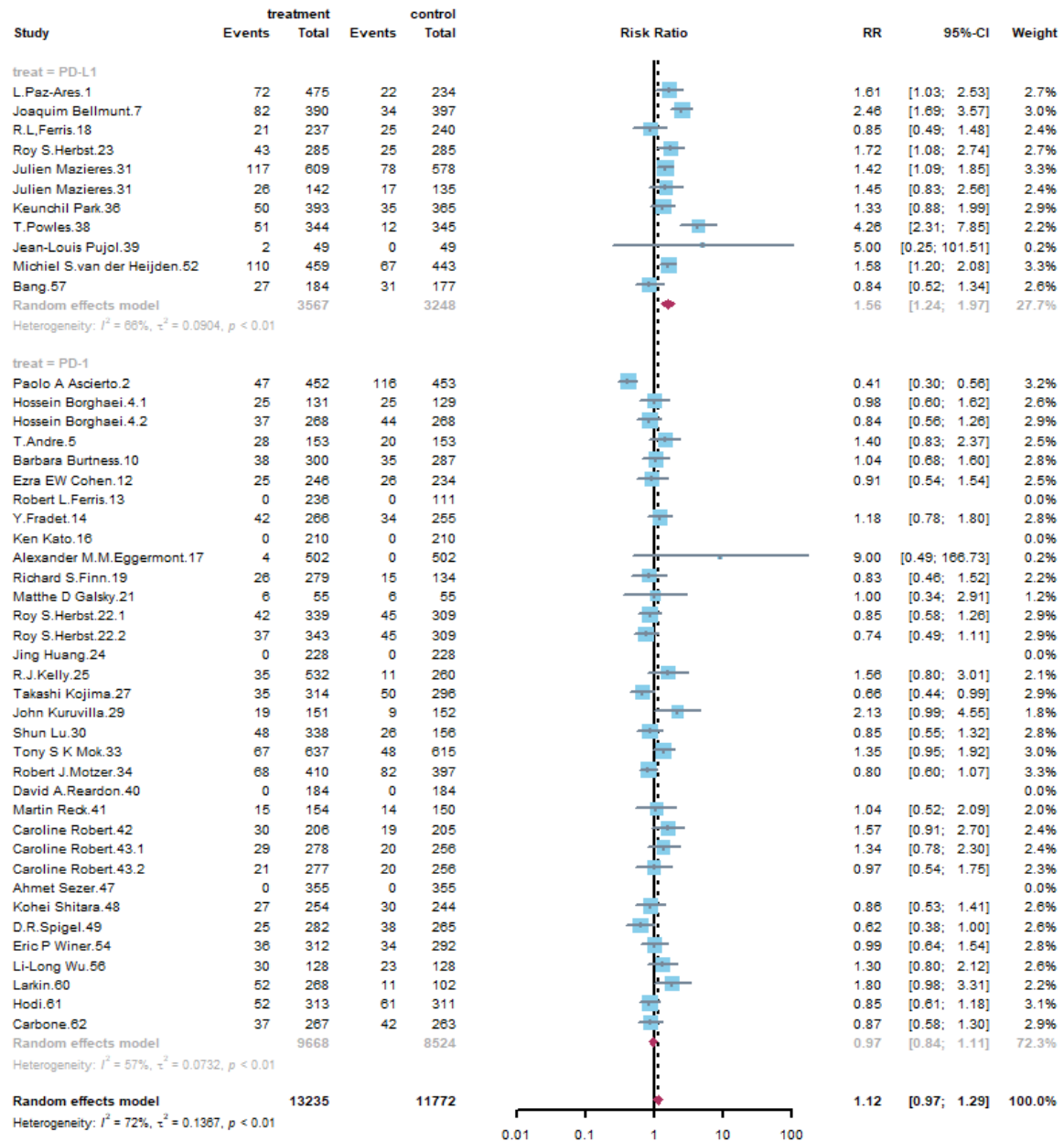


Figure S9. Forest plot of all grade fever for PD-1 or PD-L1 inhibitors compared with control groups.

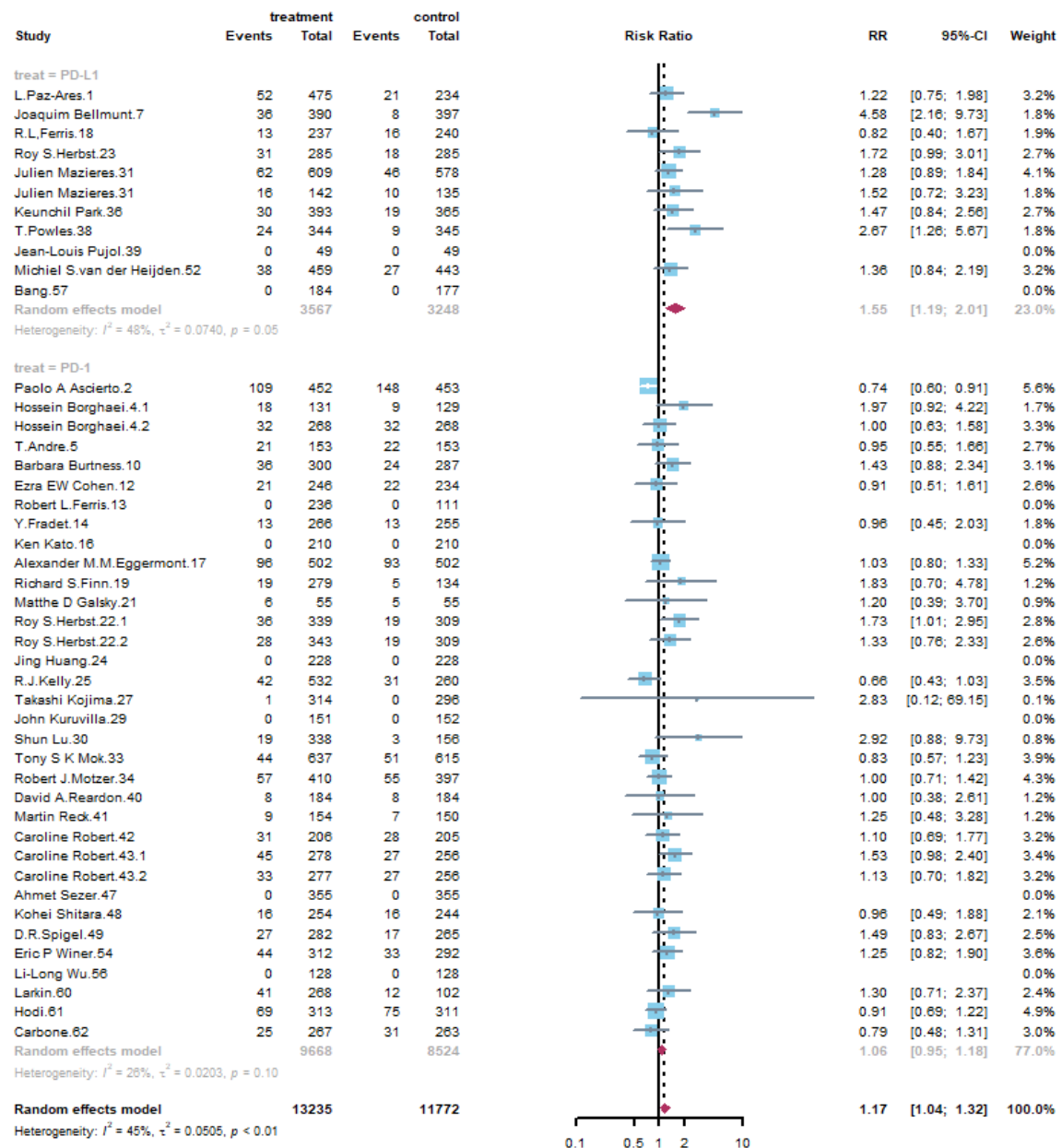


Figure S10. Forest plot of all grade headache for PD-1 or PD-L1 inhibitors compared with control groups.

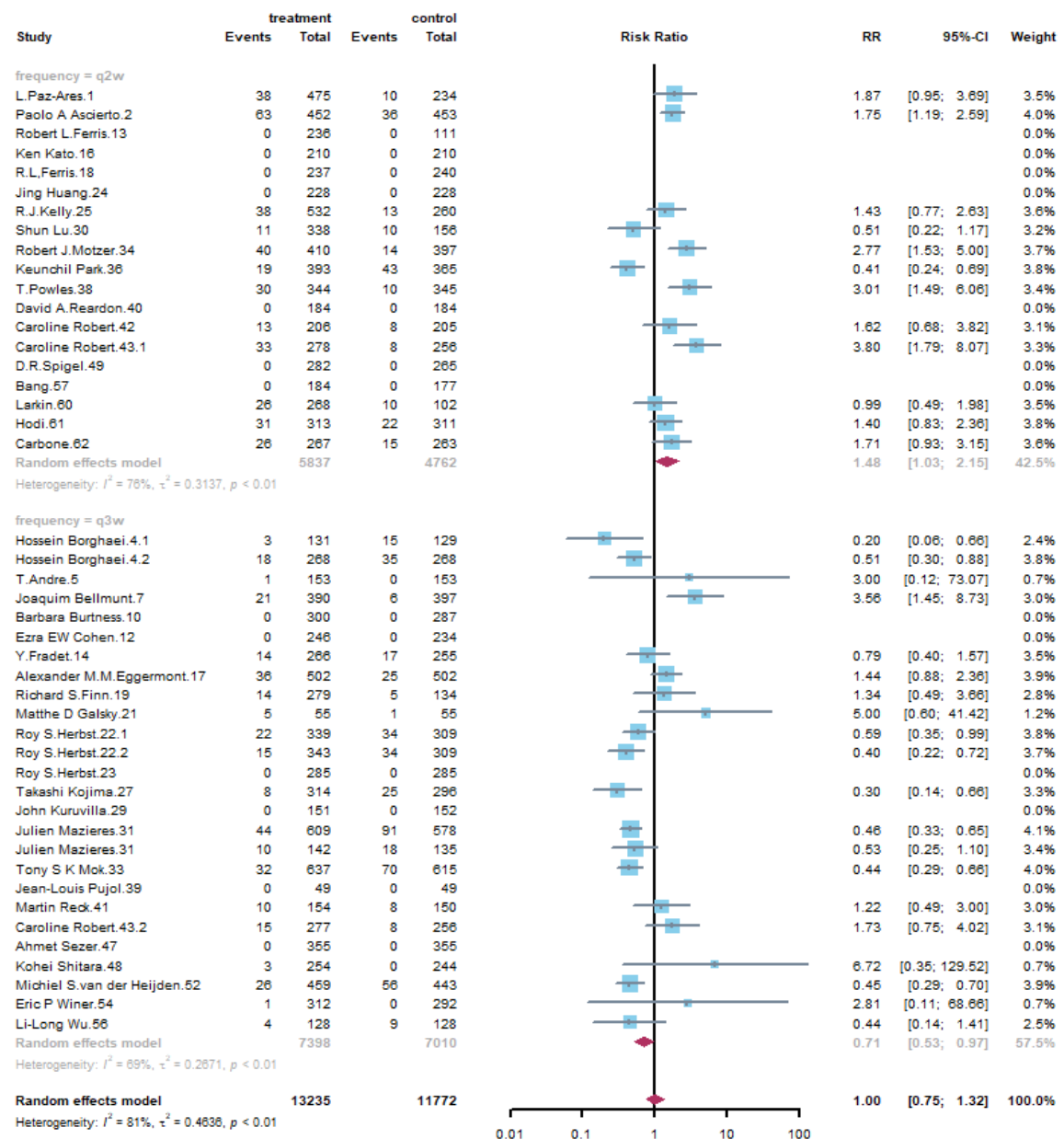


Figure S11. Forest plot of myalgia in subgroup analysis by different treatment frequency

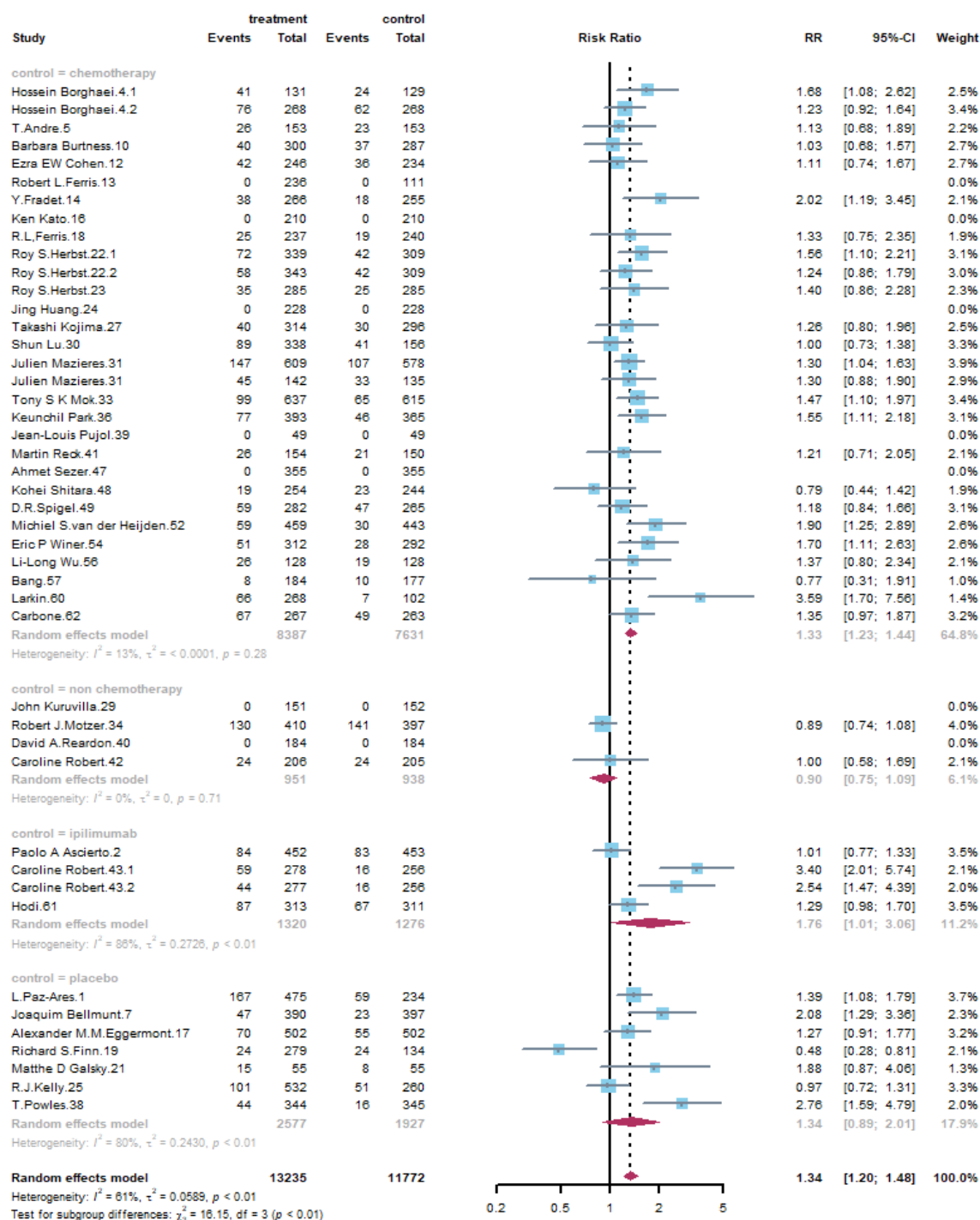


Figure S12. Forest plot of all grade cough in subgroup analysis by different control groups.

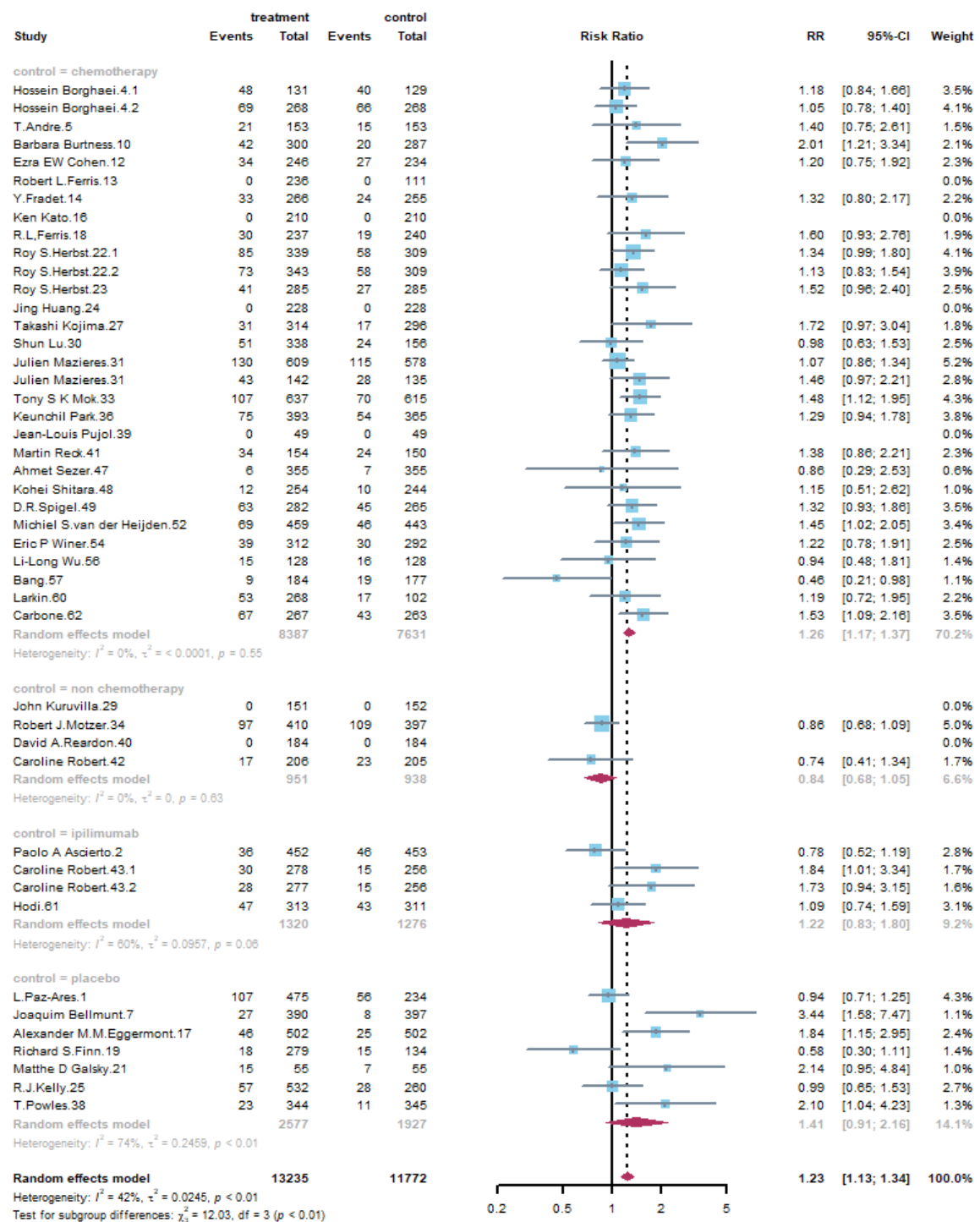


Figure S13. Forest plot of all grade dyspnea in subgroup analysis by different control groups.