

Appendix 3 Supplementary forest plots

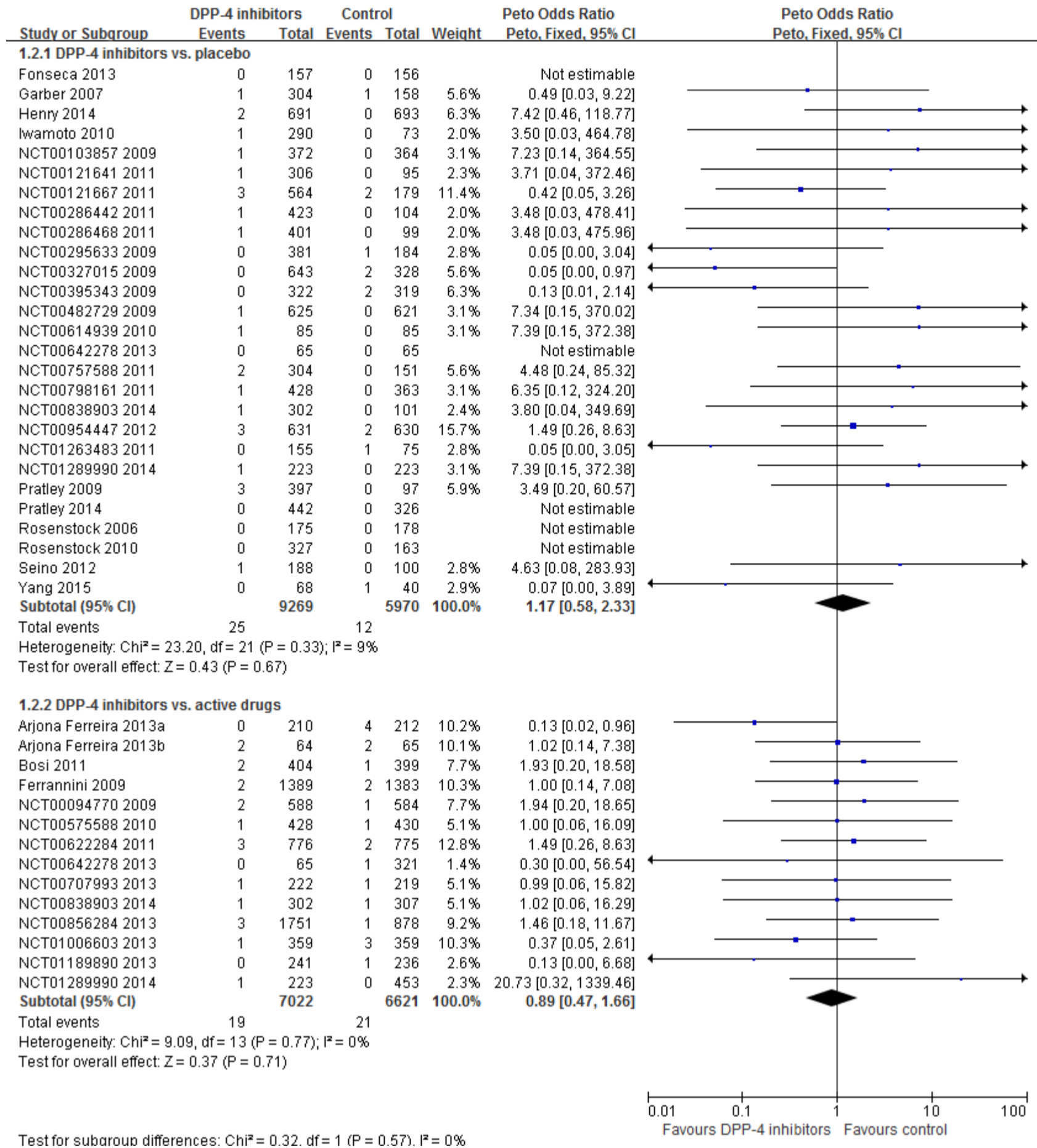
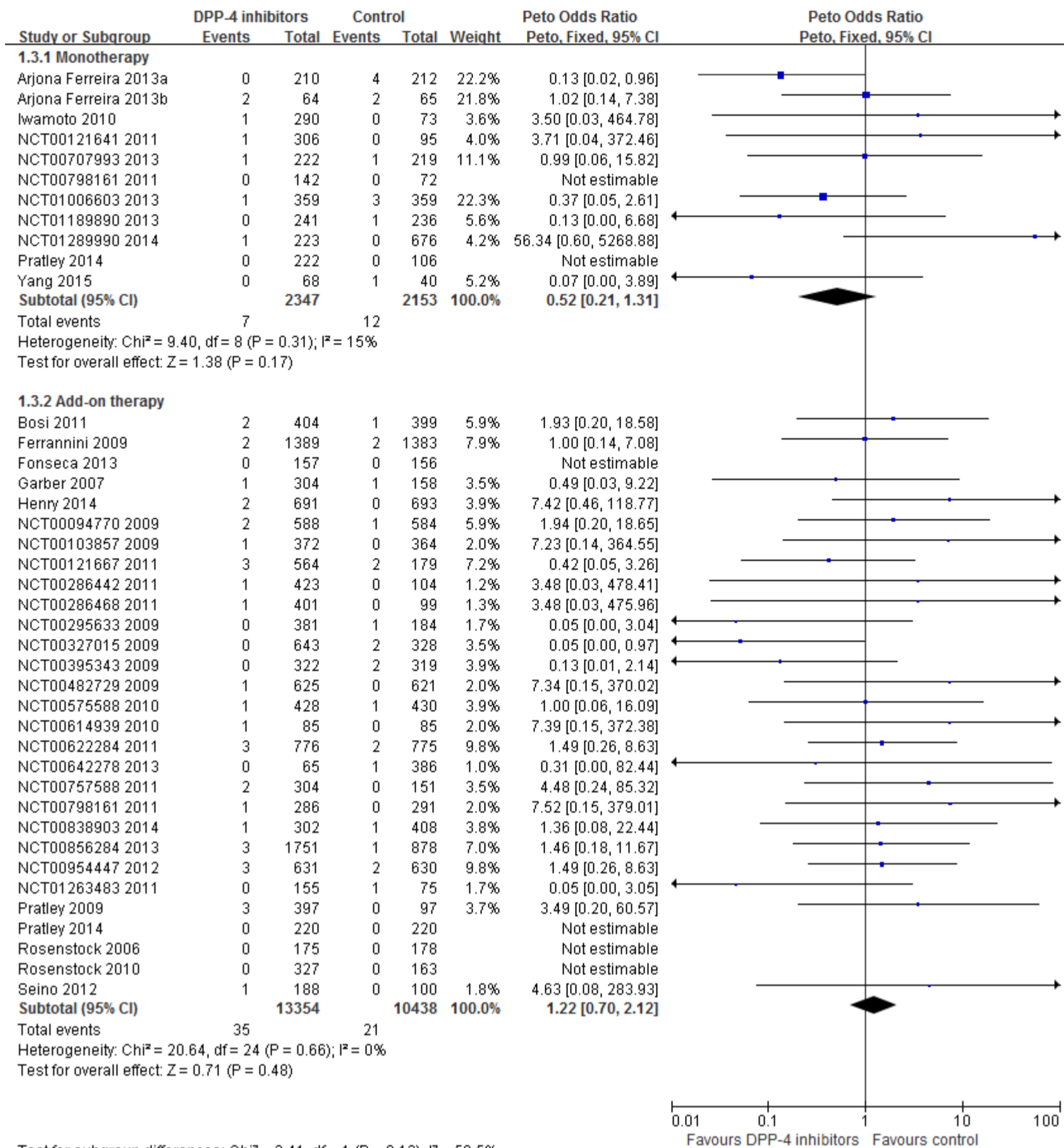
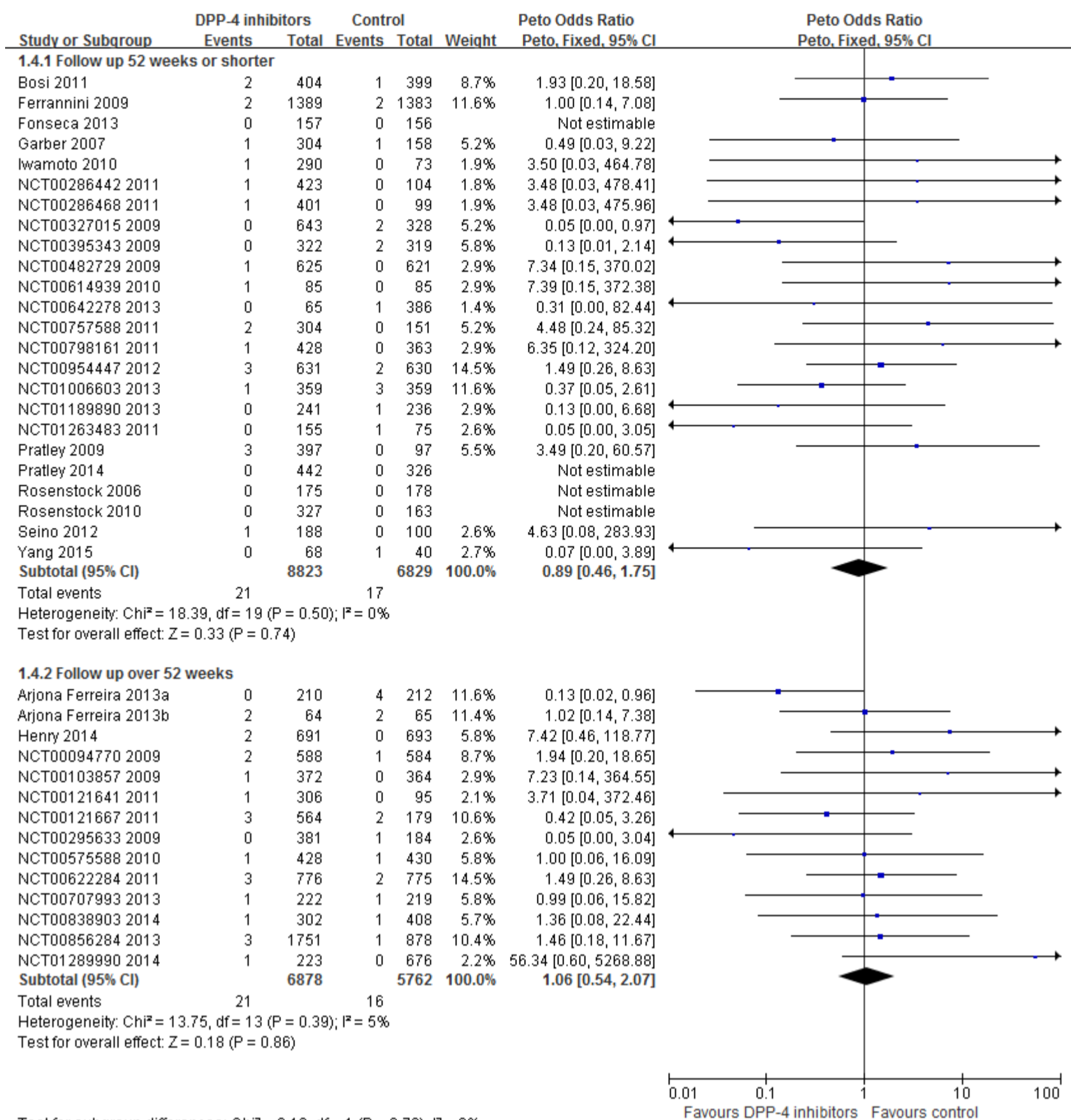


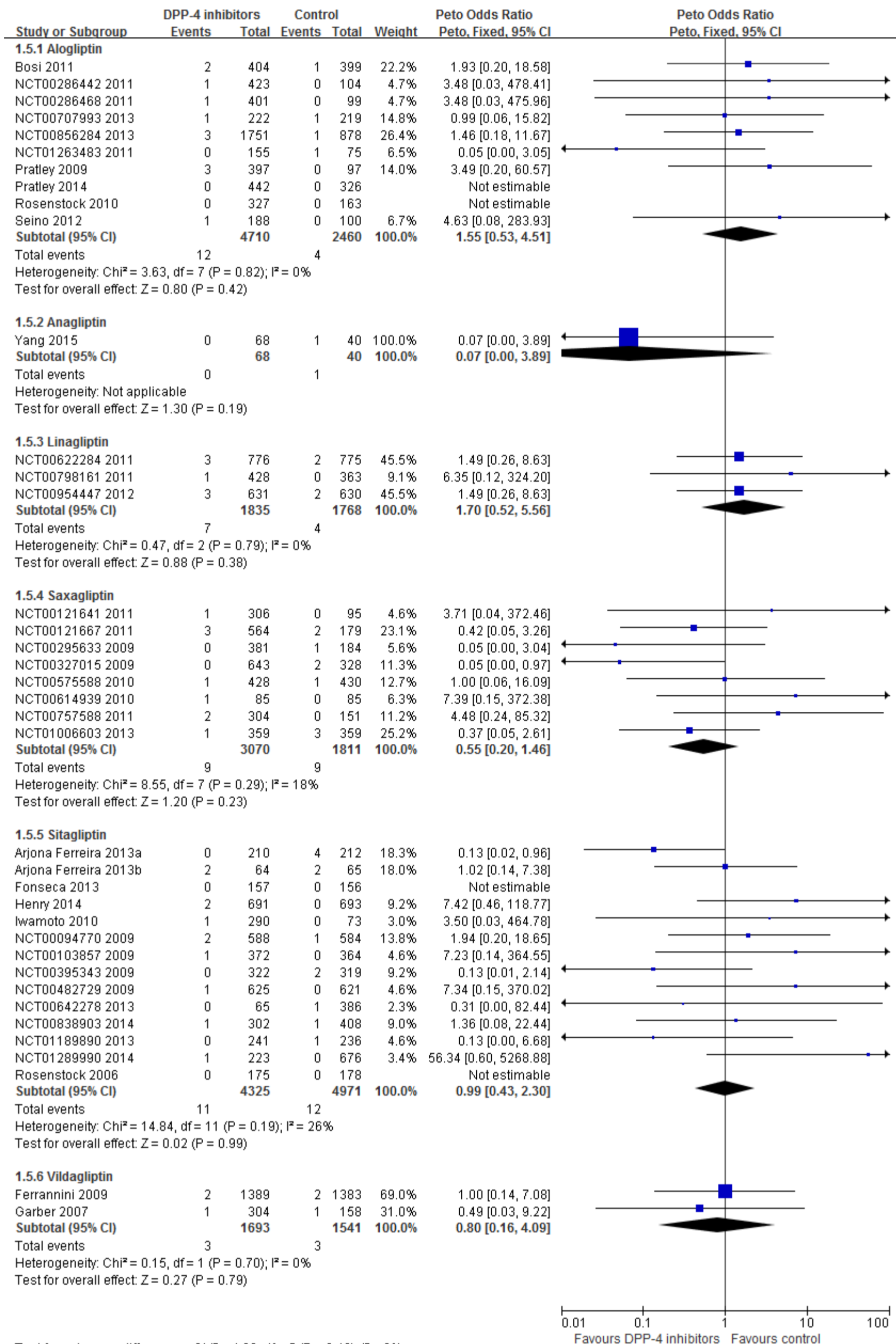
Fig A Subgroup analysis of heart failure risk by type of control in randomized controlled trials



**Fig B** Subgroup analysis of heart failure risk by mode of therapy in randomized controlled trials

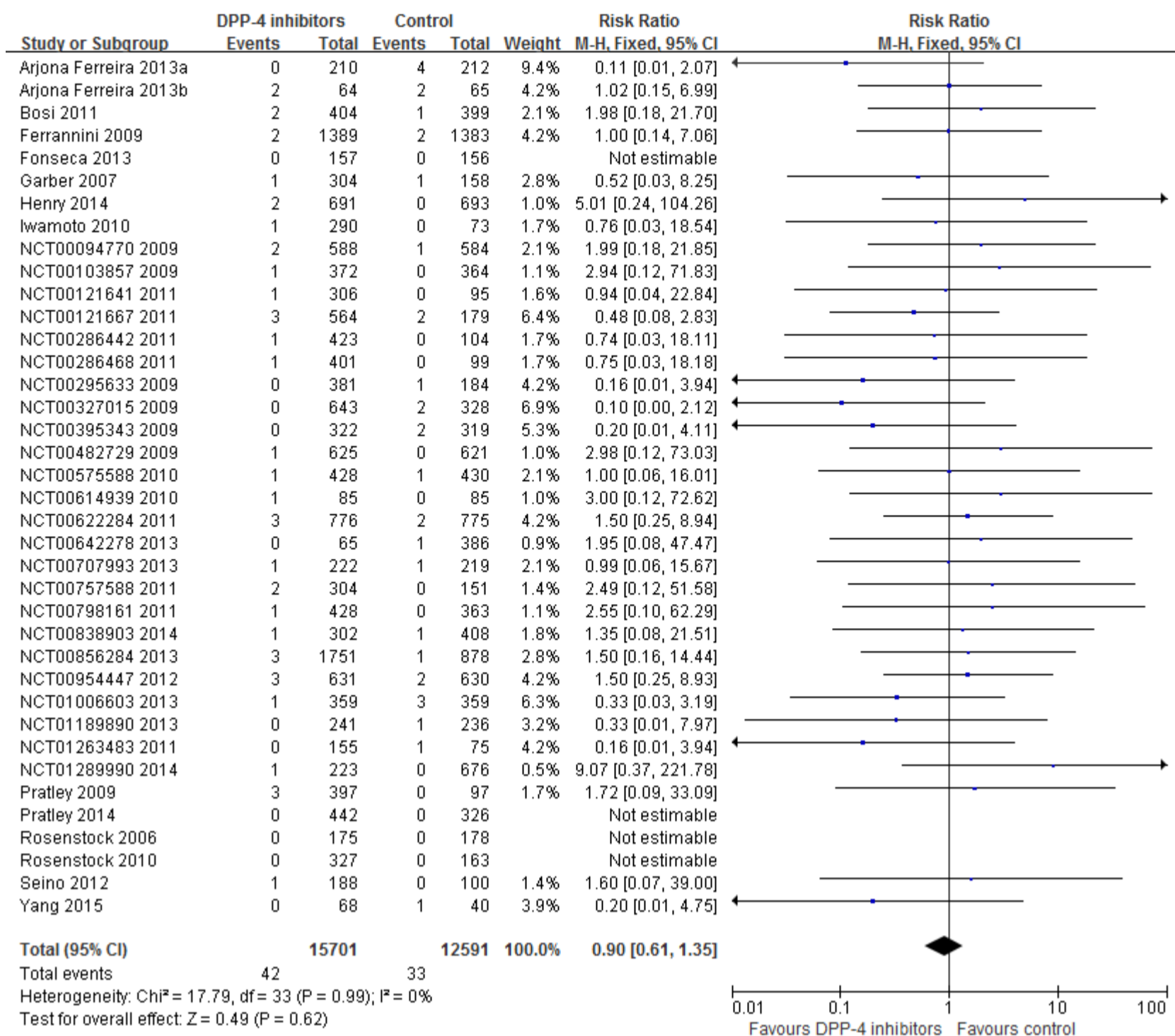


**Fig C** Subgroup analysis of heart failure risk by length of follow up in randomized controlled trials

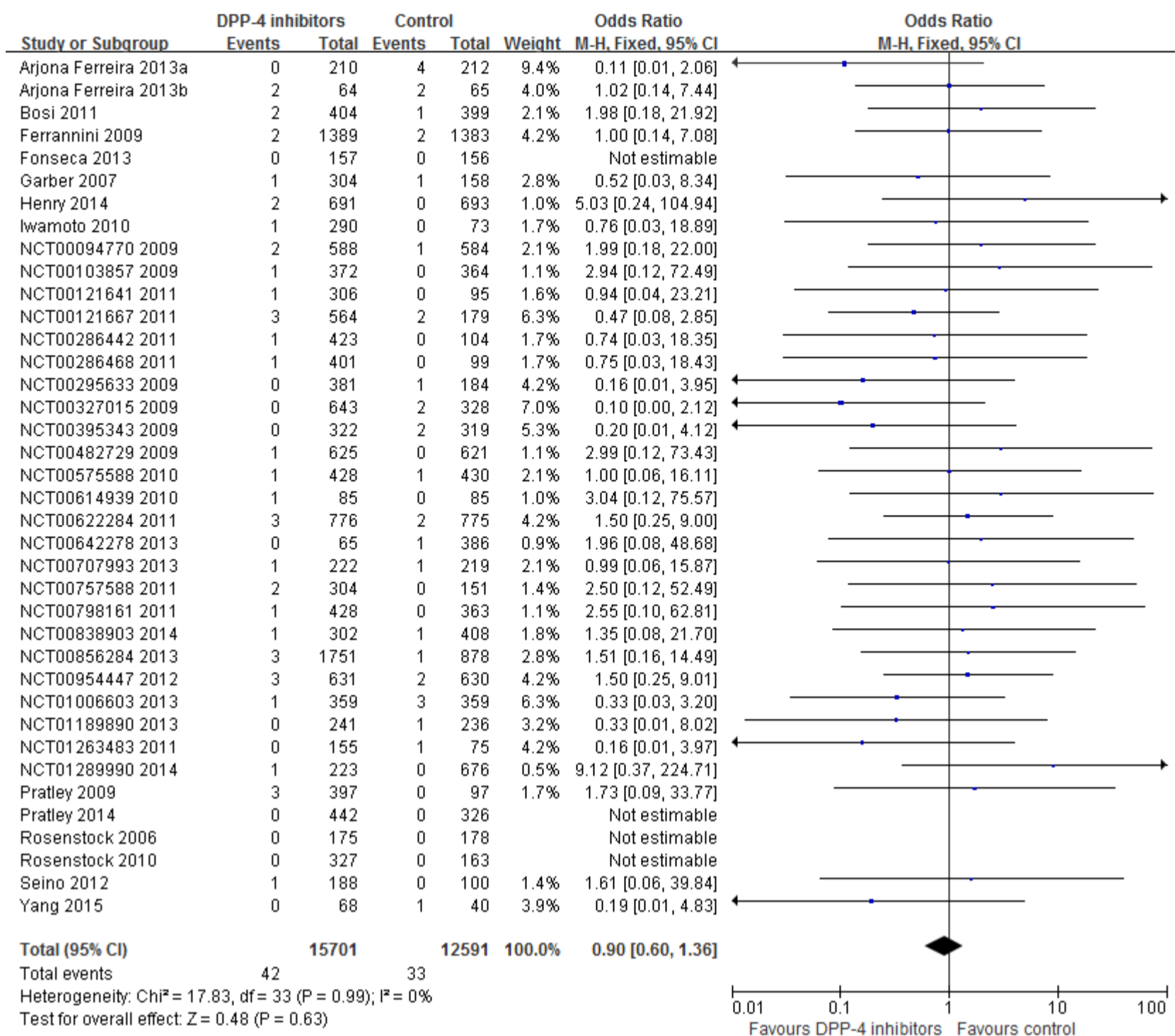


Test for subgroup differences: Chi<sup>2</sup> = 4.63, df = 5 (P = 0.46), I<sup>2</sup> = 0%

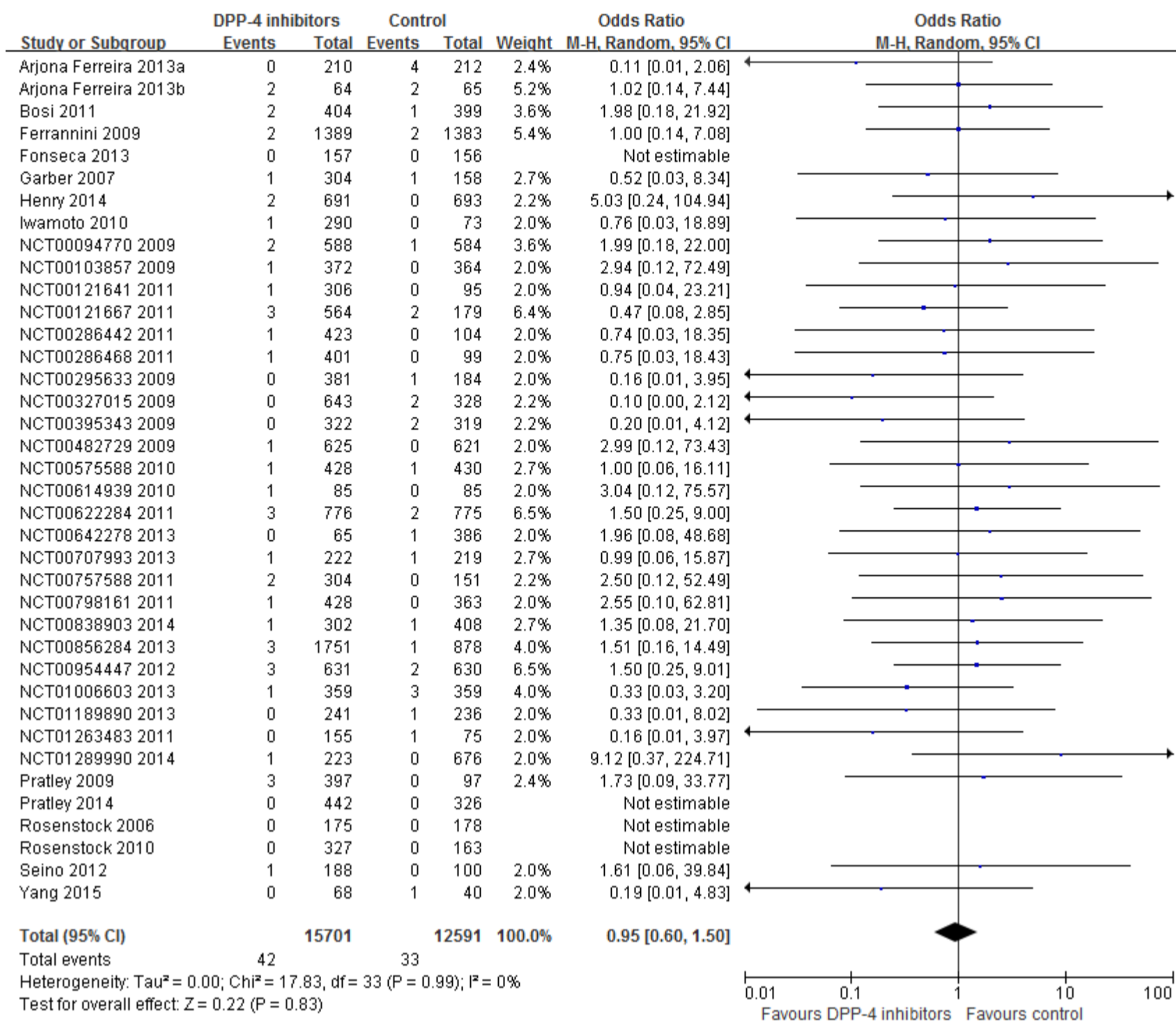
**Fig D** Subgroup analysis of heart failure risk by individual DPP-4 inhibitors agents in randomized controlled trials



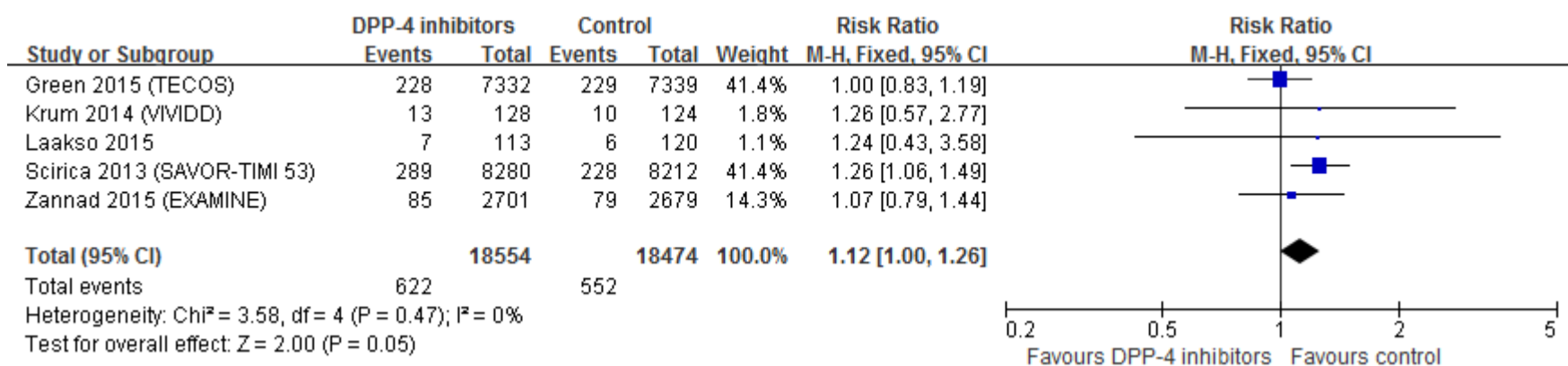
**Fig E** Sensitivity analysis of heart failure risk by using alternative effect measure risk ratio in randomized controlled trials



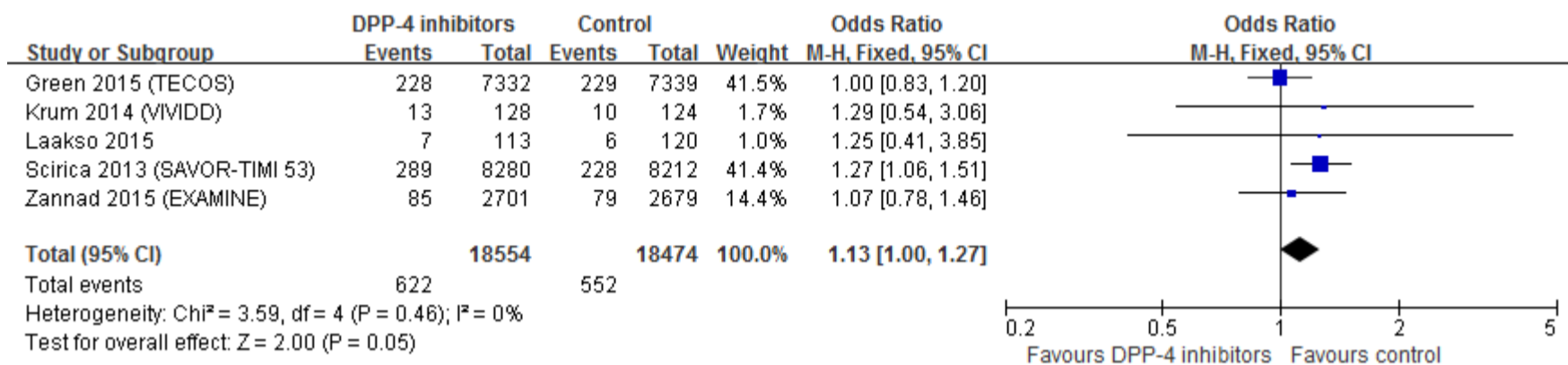
**Fig F** Sensitivity analysis of heart failure risk by using fixed Mantel-Hanszel statistical model in randomized controlled trials



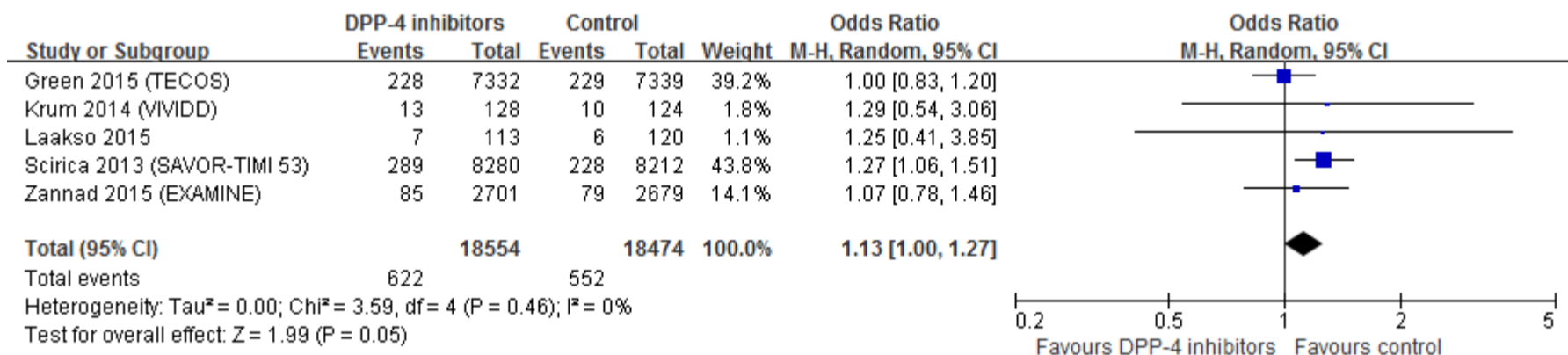
**Fig G** Sensitivity analysis of heart failure risk by using random effects model in randomized controlled trials



**Fig H** Sensitivity analysis of hospital admission for heart failure by using alternative effect measure risk ratio in randomized controlled trials



**Fig I** Sensitivity analysis of hospital admission for heart failure by using fixed Mantel-Hanszel statistical model in randomized controlled trials



**Fig J** Sensitivity analysis of hospital admission for heart failure by using random effects model in randomized controlled trials