

## *Supplementary file 2*

### **This word file includes:**

**Table S1** Quality assessment of the included observational studies by Newcastle-Ottawa scale

**Figure S1** Sensitivity analysis of pooled analysis

**Figure S2** Subgroup analysis of the included studies based on original effect size

**Figure S3** Subgroup analysis of the included studies based on study center

**Figure S4** Subgroup analysis of the included studies based on illness severity

**Figure S5** Subgroup analysis of the included studies based on antiplatelet agents

**Figure S6** Subgroup analysis of the included studies based on treatment timing

**Figure S7** Subgroup analysis of the included studies based on anticoagulants use

**Figure S8** Funnel plot for publication bias tests

## Supplementary Table and Figures

**Table S1** | Quality assessment of the included observational studies by the Newcastle–Ottawa scale

Cohort Studies									
Study	Selection				Comparability	Outcome			Total score
	Exposed Cohort	Nonexposed Cohort	Ascertainment of exposure	Outcome of interest		Assessment of outcome	Length of follow-up	Adequacy of follow-up	
Aydinyilmaz (41)	1	1	0	1	1	1	1	1	7
Chow (42)	1	1	1	1	1	1	1	1	8
Corrochano (43)	1	1	1	1	1	1	1	1	8
Fröhlich (44)	1	1	1	1	1	1	1	1	8
Gupta (45)	1	1	0	1	1	1	1	1	7
Aghajani (46)	1	1	1	1	1	1	0	1	7
Ho (47)	1	1	1	1	1	1	1	1	8
Izzi-Engbeaya (48)	1	0	0	1	1	1	1	1	6
Liu (49)	1	1	1	1	1	1	1	1	8
Matli (50)	1	1	1	1	1	1	1	1	8
Meizlish (51)	1	1	1	1	1	1	1	1	8
Merzon (52)	1	1	1	1	1	1	0	1	7
Mura (53)	1	1	1	1	1	1	0	0	6
Osborne (54)	1	1	1	1	1	1	1	1	8
Pan (55)	1	1	1	1	1	1	1	1	8
Russo (56)	1	1	1	1	1	1	1	1	8
Sahai (57)	1	1	1	1	1	1	0	1	7
Santoro (58)	1	1	1	1	1	1	1	1	8
Sisinni (59)	1	1	1	1	1	1	1	1	8
Soldevila (60)	1	1	1	1	1	1	1	1	8
Terlecki (61)	1	1	1	1	1	1	1	1	8
Tremblay (62)	1	1	1	1	1	1	1	1	8
Zhao (63)	1	1	1	1	1	1	1	1	8

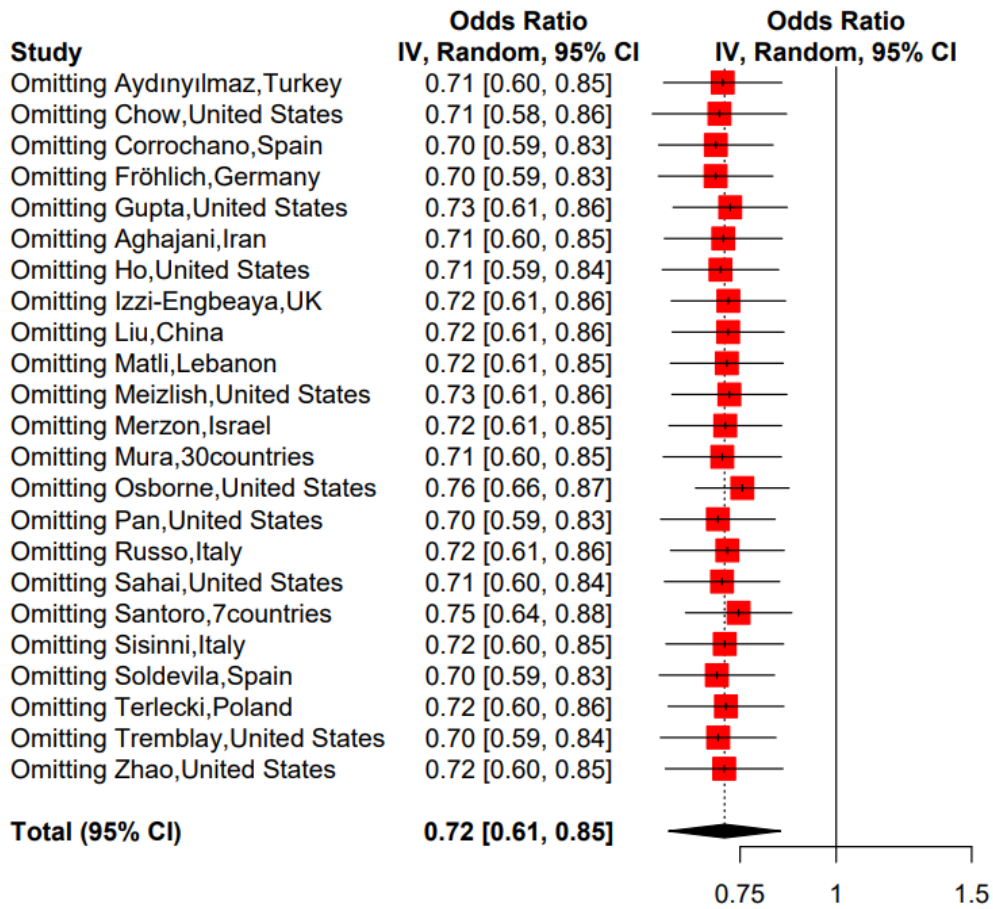
### References

41. Aydinyilmaz F, Aksakal E, Pamukcu HE, Aydemir S, Doğan R, Saraç İ, et al. Significance of MPV, RDW and PDW with the Severity and Mortality of COVID-19 and Effects of Acetylsalicylic Acid Use. *Clin Appl Thromb Hemost.* (2021) 27: 10760296211048808. doi:10.1177/10760296211048808
42. Chow JH, Yin Y, Yamane DP, Davison D, Keneally RJ, Hawkins K, et al. Association of prehospital antiplatelet therapy with survival in patients hospitalized with COVID-19: A propensity score-matched analysis. *J Thromb Haemost.* (2021) 19: 2814-24. doi:10.1111/jth.15517
43. Corrochano M, Acosta-Isaac R, Mojal S, Miqueleiz S, Rodriguez D, Quijada-Manuitt M, et al. Impact of pre-admission antithrombotic therapy on disease severity and mortality in patients

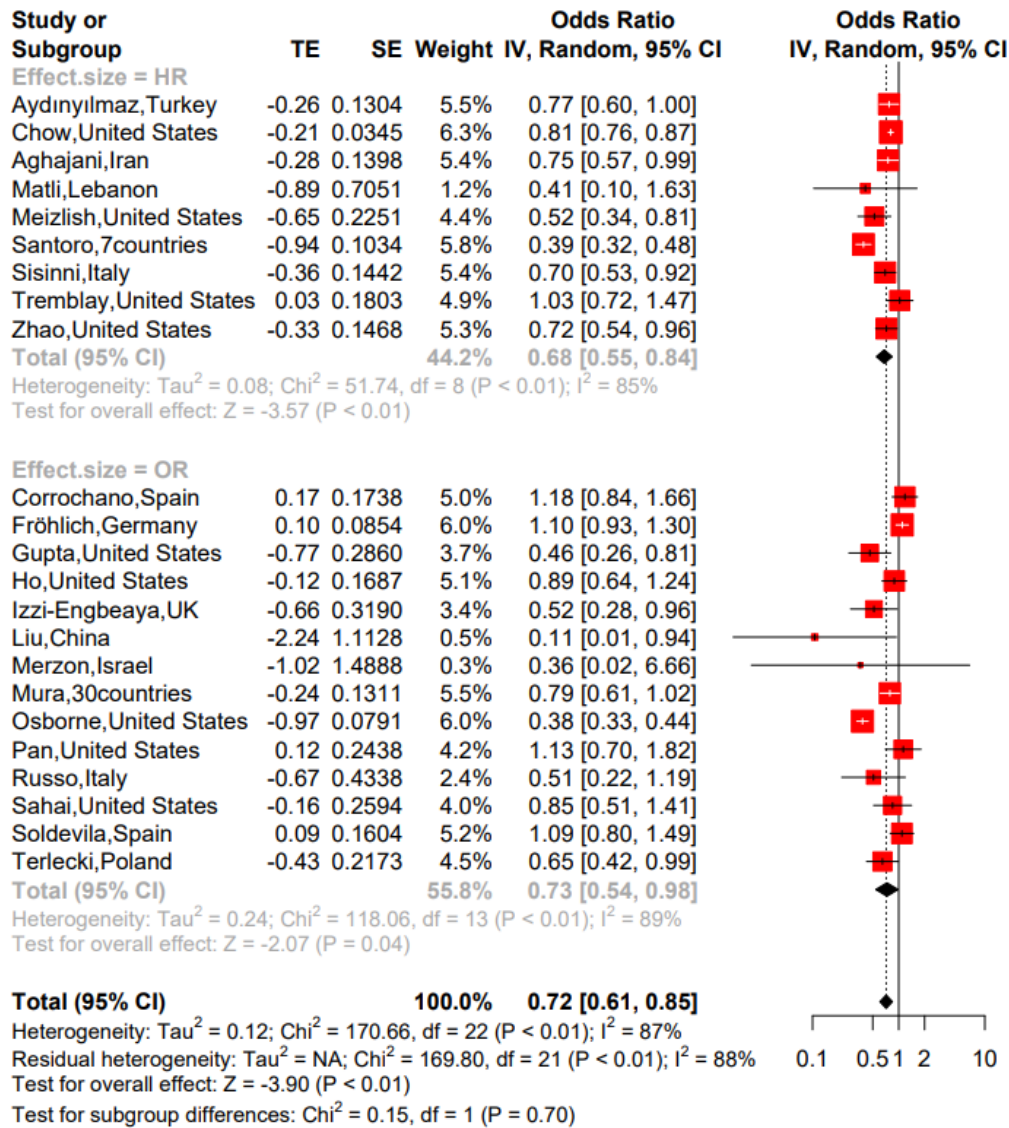
- hospitalized for COVID-19. *J Thromb Thrombolysis*. (2021): 1-7. doi:10.1007/s11239-021-02507-2
44. Fröhlich GM, Jeschke E, Eichler U, Thiele H, Alhariri L, Reinthaler M, et al. Impact of oral anticoagulation on clinical outcomes of COVID-19: a nationwide cohort study of hospitalized patients in Germany. *Clin Res Cardiol*. (2021) 110: 1041-50. doi:10.1007/s00392-020-01783-x
  45. Gupta A, Madhavan MV, Poterucha TJ, Defilippis EM, Hennessey JA, Redfors B, et al. Association between antecedent statin use and decreased mortality in hospitalized patients with COVID-19. *Nat Commun*. (2021) 12: 1325. doi:10.1038/s41467-021-21553-1
  46. Haji Aghajani M, Moradi O, Amini H, Azhdari Tehrani H, Pourheidar E, Rabiei MM, et al. Decreased in-hospital mortality associated with aspirin administration in hospitalized patients due to severe COVID-19. *J Med Virol*. (2021) 93: 5390-5. doi:10.1002/jmv.27053
  47. Ho G, Dusendang JR, Schmittziel J, Kavecansky J, Tavakoli J, Pai A. Association of chronic anticoagulant and antiplatelet use on disease severity in SARS-COV-2 infected patients. *J Thromb Thrombolysis*. (2021) 52: 476-81. doi:10.1007/s11239-021-02383-w
  48. Izzi-Engbeaya C, Distaso W, Amin A, Yang W, Idowu O, Kenkre JS, et al. Adverse outcomes in COVID-19 and diabetes: a retrospective cohort study from three London teaching hospitals. *BMJ Open Diabetes Res Care*. (2021) 9. doi:10.1136/bmjdr-2020-001858
  49. Liu Q, Huang N, Li A, Zhou Y, Liang L, Song X, et al. Effect of low-dose aspirin on mortality and viral duration of the hospitalized adults with COVID-19. *Medicine (Baltimore)*. (2021) 100: e24544. doi:10.1097/md.00000000000024544
  50. Matli K, Chamoun N, Fares A, Zibara V, Al-Osta S, Nasrallah R, et al. Combined anticoagulant and antiplatelet therapy is associated with an improved outcome in hospitalised patients with COVID-19: a propensity matched cohort study. *Open Heart*. (2021) 8. doi:10.1136/openhrt-2021-001785
  51. Meizlish ML, Goshua G, Liu Y, Fine R, Amin K, Chang E, et al. Intermediate-dose anticoagulation, aspirin, and in-hospital mortality in COVID-19: A propensity score-matched analysis. *Am J Hematol*. (2021) 96: 471-9. doi:10.1002/ajh.26102
  52. Merzon E, Green I, Vinker S, Golan-Cohen A, Gorohovski A, Avramovich E, et al. The use of aspirin for primary prevention of cardiovascular disease is associated with a lower likelihood of COVID-19 infection. *Febs j*. (2021) 288: 5179-89. doi:10.1111/febs.15784
  53. Mura C, Preissner S, Nahles S, Heiland M, Bourne PE, Preissner R. Real-world evidence for improved outcomes with histamine antagonists and aspirin in 22,560 COVID-19 patients. *Signal Transduct Target Ther*. (2021) 6: 267. doi:10.1038/s41392-021-00689-y
  54. Osborne TF, Veigulis ZP, Arreola DM, Mahajan SM, Roosli E, Curtin CM. Association of mortality and aspirin prescription for COVID-19 patients at the Veterans Health Administration. *PLoS ONE*. (2021) 16. doi:10.1371/journal.pone.0246825
  55. Pan D, Ip A, Zhan S, Wasserman I, Snyder DJ, Agathis AZ, et al. Pre-hospital antiplatelet medication use on COVID-19 disease severity. *Heart Lung*. (2021) 50: 618-21. doi:10.1016/j.hrtlng.2021.04.010
  56. Russo V, Di Maio M, Attena E, Silverio A, Scudiero F, Celentani D, et al. Clinical impact of pre-admission antithrombotic therapy in hospitalized patients with COVID-19: A multicenter observational study. *Pharmacol Res*. (2020) 159: 104965. doi:10.1016/j.phrs.2020.104965
  57. Sahai A, Bhandari R, Godwin M, McIntyre T, Chung MK, Iskandar JP, et al. Effect of aspirin on short-term outcomes in hospitalized patients with COVID-19. *Vasc Med*. (2021):

1358863x211012754. doi:10.1177/1358863x211012754

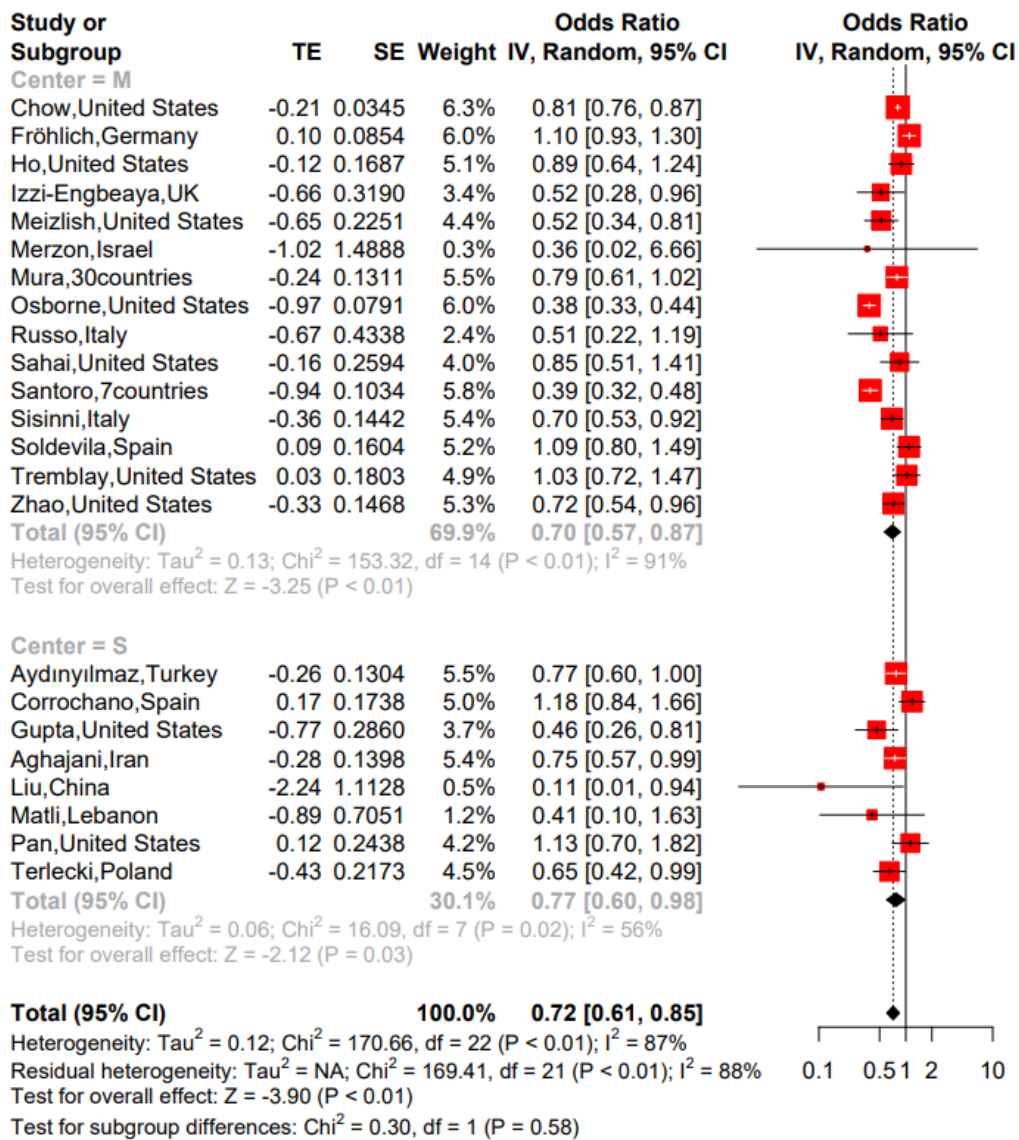
58. Santoro F, Nuñez-Gil IJ, Vitale E, Viana-Llamas MC, Reche-Martinez B, Romero-Pareja R, et al. Antiplatelet therapy and outcome in COVID-19: the Health Outcome Predictive Evaluation Registry. *Heart*. (2021). doi:10.1136/heartjnl-2021-319552
59. Sisinni A, Rossi L, Battista A, Poletti E, Battista F, Battista RA, et al. Pre-admission acetylsalicylic acid therapy and impact on in-hospital outcome in COVID-19 patients: The ASA-CARE study. *Int J Cardiol*. (2021) 344: 240-5. doi:10.1016/j.ijcard.2021.09.058
60. Soldevila L, Valerio-Sallent L, Roure S, Pérez-Quílez O, Mas M, Miralles R, et al. Drug exposure may have a substantial influence on COVID-19 prognosis among residents of long-term care facilities: an exploratory analysis. *Int J Infect Dis*. (2021) 109: 192-4. doi:10.1016/j.ijid.2021.07.007
61. Terlecki M, Wojciechowska W, Klocek M, Olszanecka A, Stolarz-Skrzypek K, Grodzicki T, et al. Association between cardiovascular disease, cardiovascular drug therapy, and in-hospital outcomes in patients with COVID-19: Data from a large single-center registry in Poland. *Kardiologia Polska*. (2021) 79: 773-80. doi:10.33963/KP.15990
62. Tremblay D, Van Gerwen M, Alsen M, Thibaud S, Kessler A, Venugopal S, et al. Impact of anticoagulation prior to COVID-19 infection: a propensity score-matched cohort study. *Blood*. (2020) 136: 144-7. doi:10.1182/blood.2020006941
63. Zhao X, Gao C, Dai F, Treggiari MM, Deshpande R, Meng L. Treatments Associated with Lower Mortality among Critically Ill COVID-19 Patients. *Anesthesiology*. (2021). doi:10.1097/aln.0000000000003999



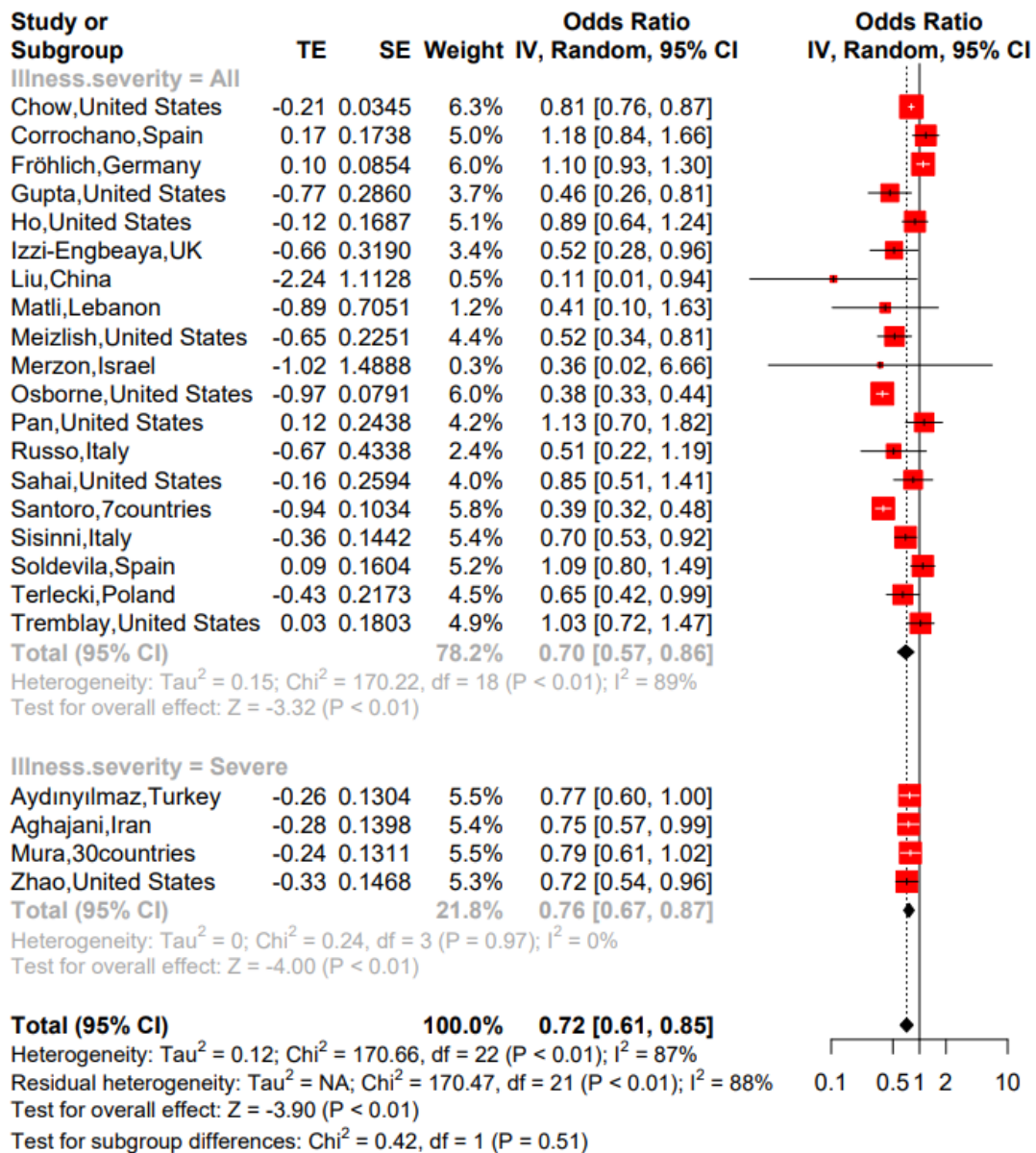
**Figure S1** | Sensitivity analysis of the pooled analysis



**Figure S2 | Subgroup analysis of the included studies based on the original effect size**

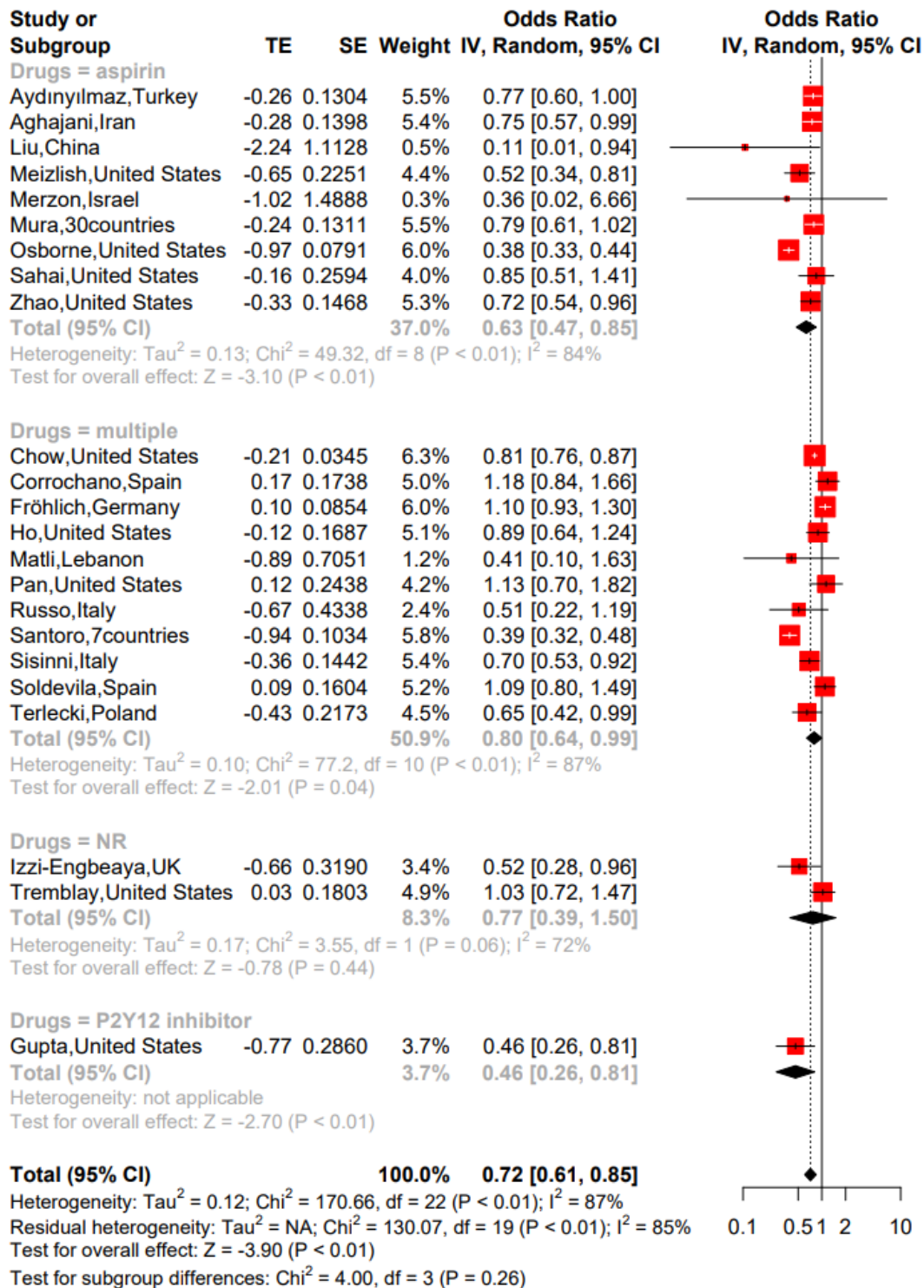


**Figure S3** | Subgroup analysis of the included studies based on the study center

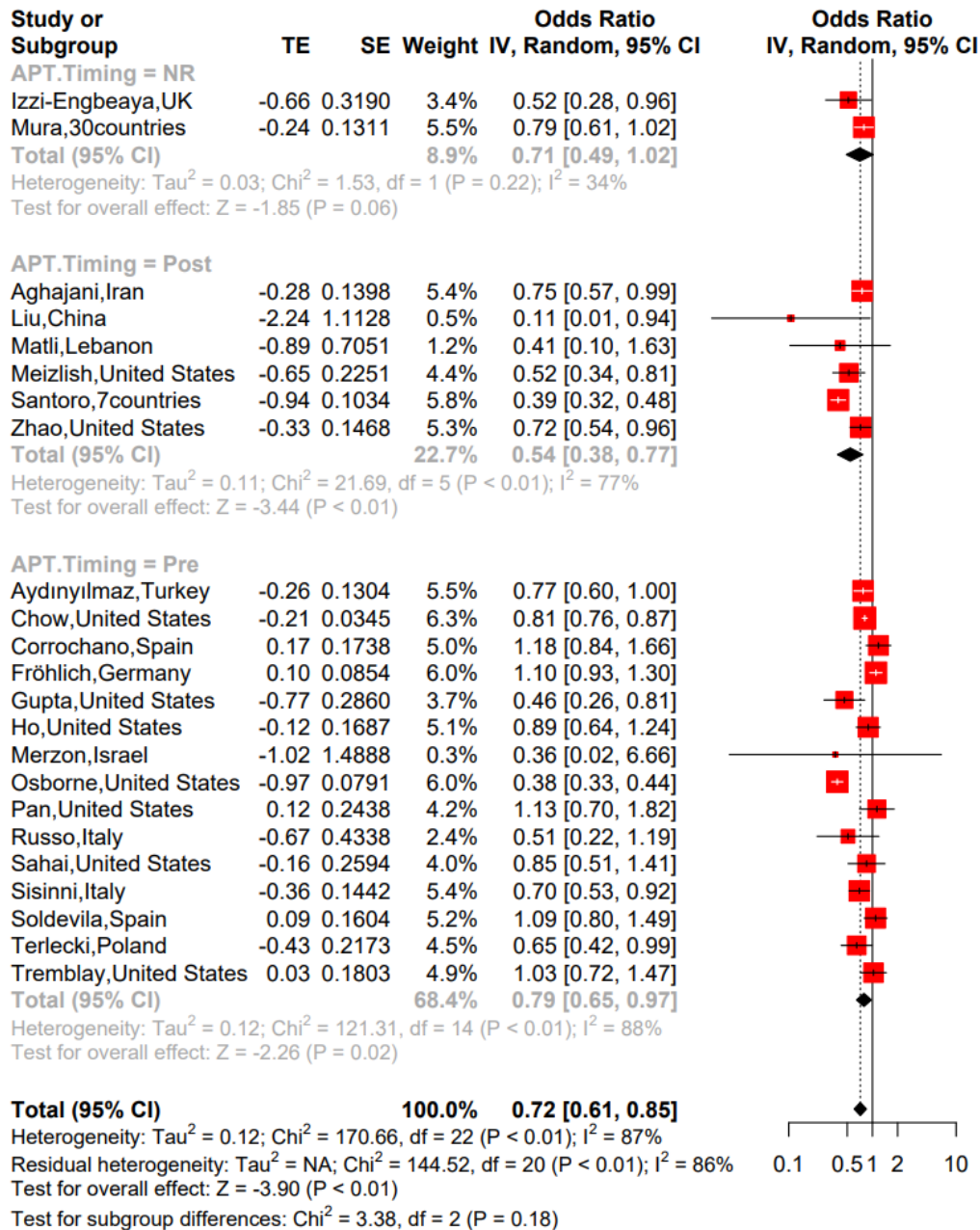


**Figure S4** | Subgroup analysis of the included studies based on illness severity

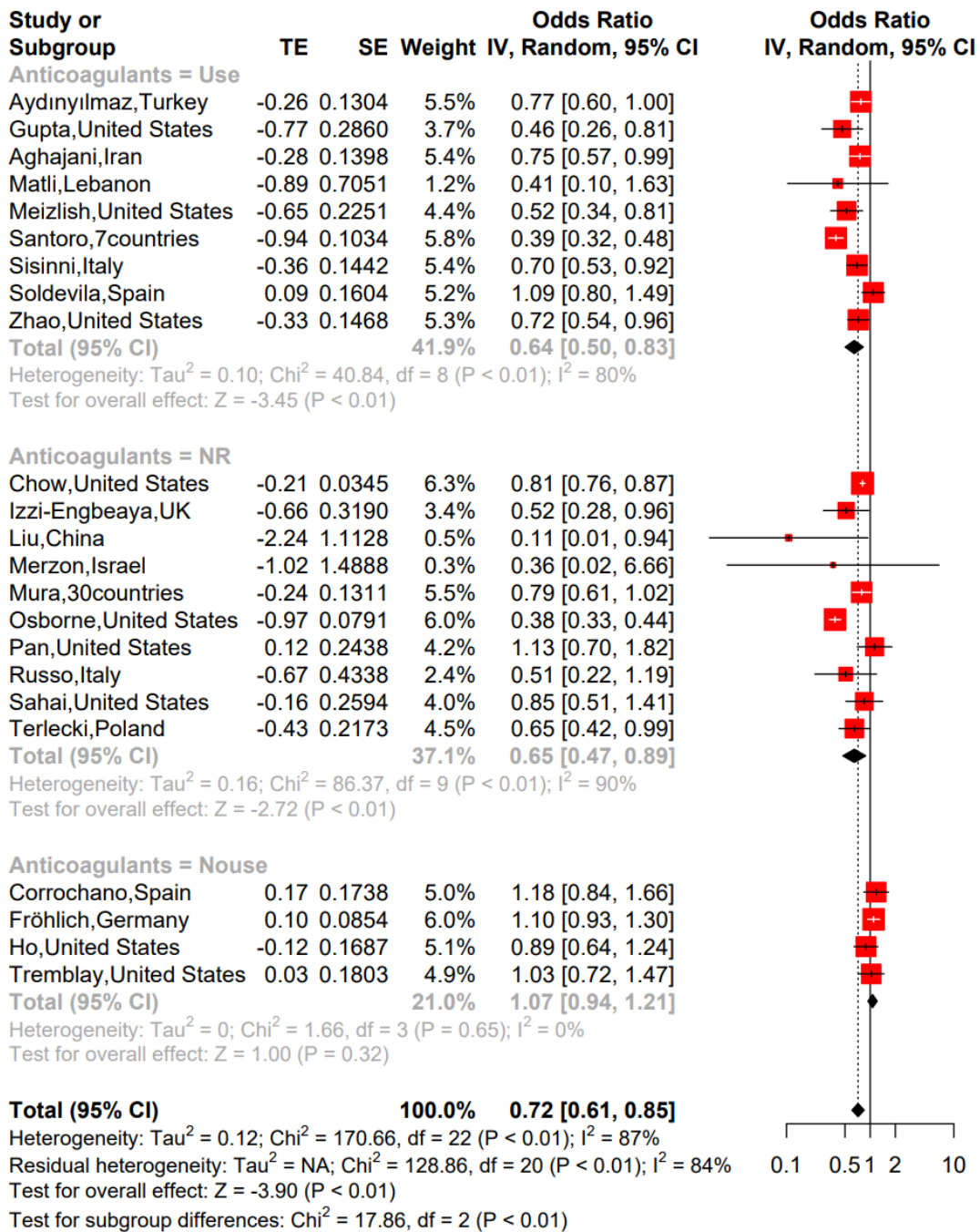




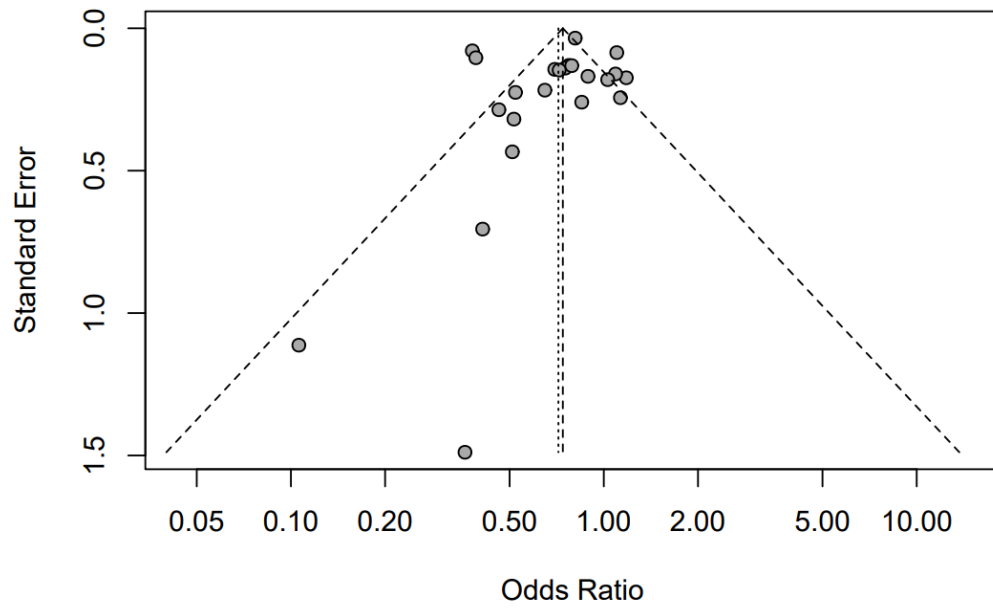
**Figure S5** | Subgroup analysis of the included studies based on antiplatelet agents



**Figure S6** | Subgroup analysis of the included studies based on treatment timing



**Figure S7 | Subgroup analysis of the included studies based on anticoagulant use**



**Figure S8** | Funnel plot for the publication bias tests