

## Supplementary File 1

### Search strategy

#### 1. PubMed (from the inception to October 4th, 2023)

#1 systemic lupus erythematosus [Title/Abstract]

#2 pregnancy [Title/Abstract]

#3 hydroxychloroquine [Title/Abstract]

#4 (#1 AND #2 AND #3) = **580**

#### 2. Embase (from the inception to October 4th, 2023)

#1 systemic lupus erythematosus [Title/Abstract]

#2 pregnancy [Title/Abstract]

#3 hydroxychloroquine [Title/Abstract]

#4 (#1 AND #2 AND #3) = **344**

#### 3. Scopus (from the inception to October 4th, 2023)

#1 systemic lupus erythematosus [Title/Abstract]

#2 pregnancy [Title/Abstract]

#3 hydroxychloroquine [Title/Abstract]

#4 (#1 AND #2 AND #3) = **197**

#### 4. Web of Science (from the inception to October 4th, 2023)

#1 systemic lupus erythematosus [Title/Abstract]

#2 pregnancy [Title/Abstract]

#3 hydroxychloroquine [Title/Abstract]

#4 (#1 AND #2 AND #3) = **192**

**5. Cochrane library** (from the inception to October 4th, 2023)

#1 systemic lupus erythematosus [Title/Abstract]

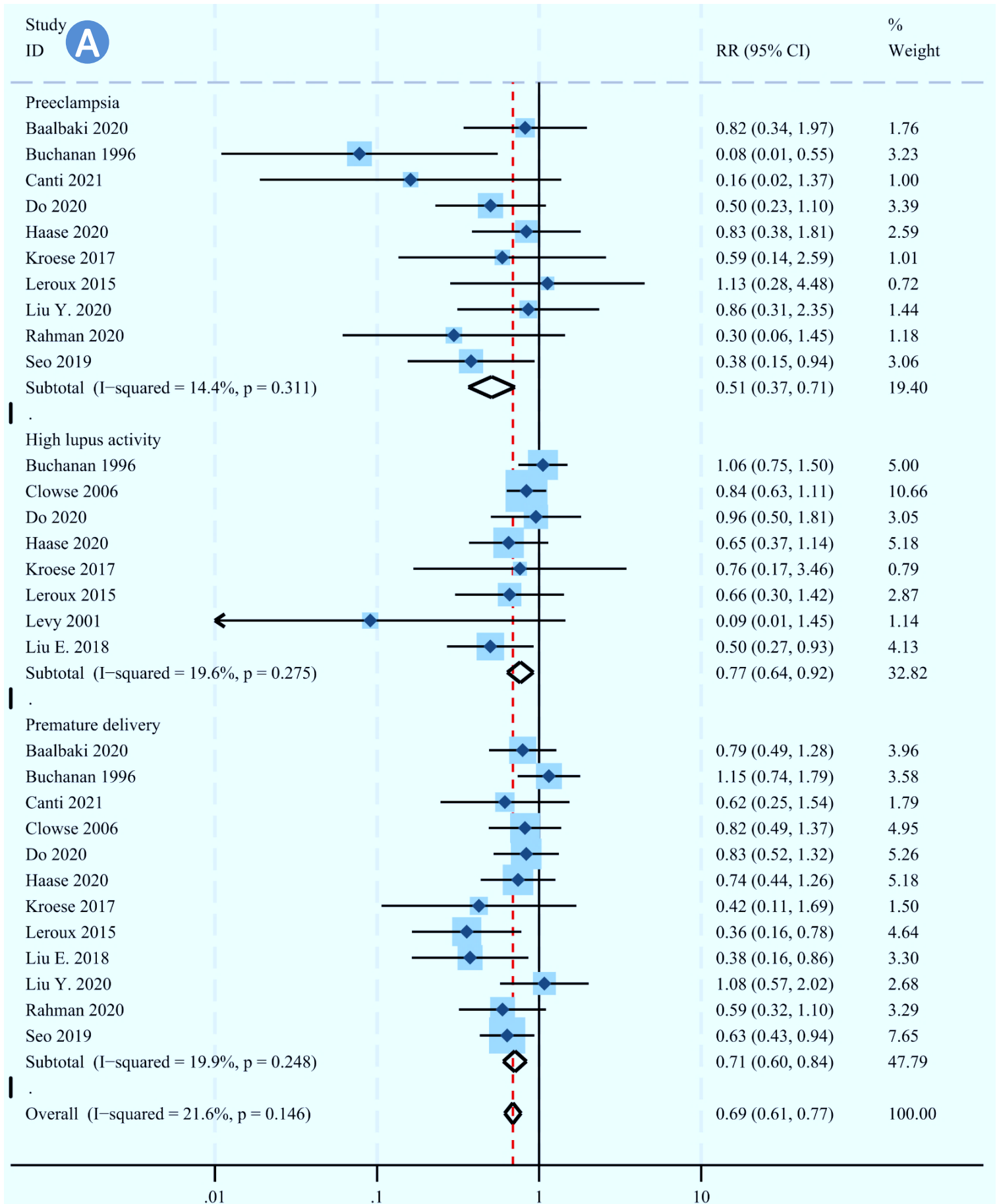
#2 pregnancy [Title/Abstract]

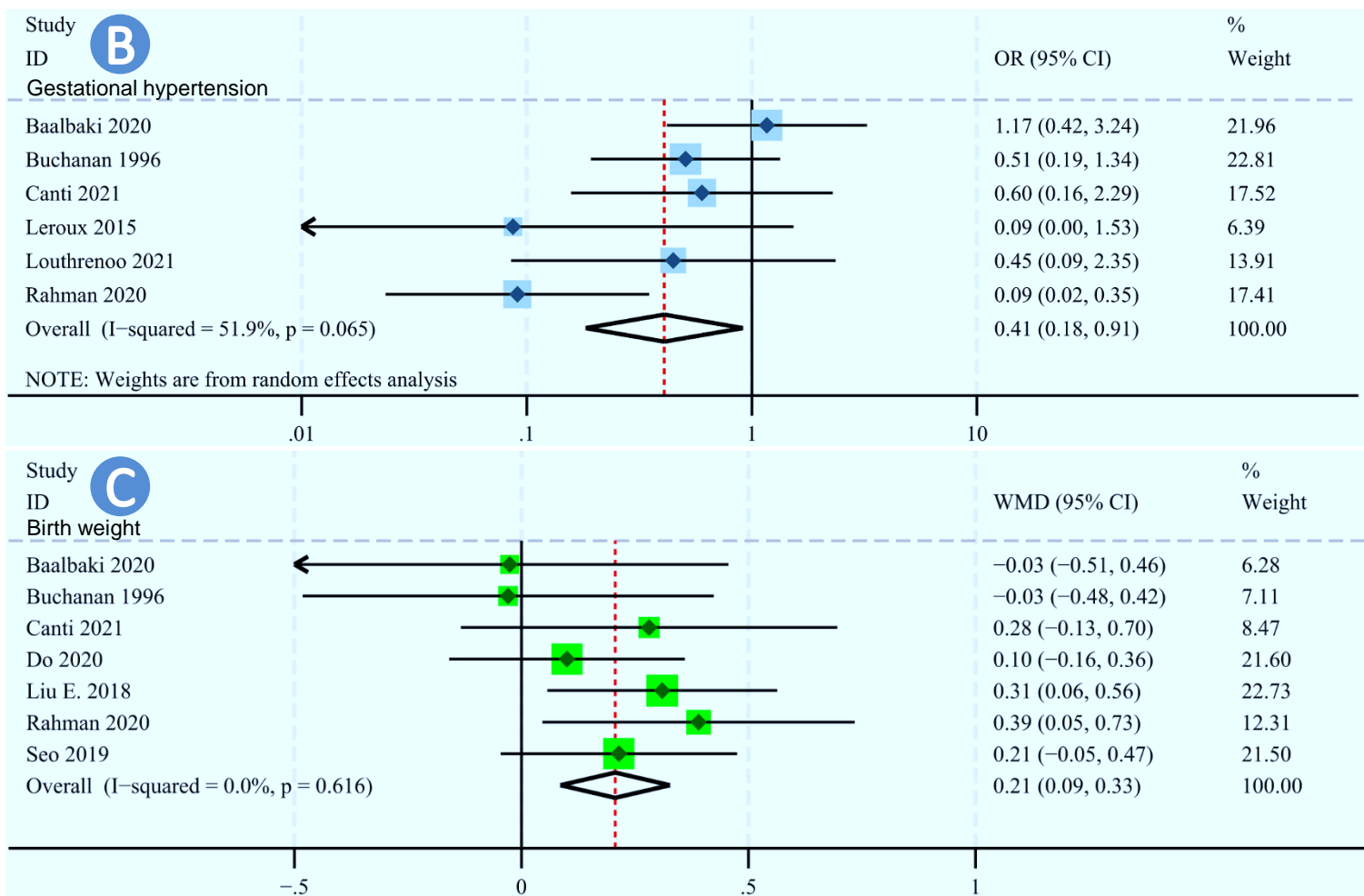
#3 hydroxychloroquine [Title/Abstract]

#4 (#1 AND #2 AND #3) = **19**

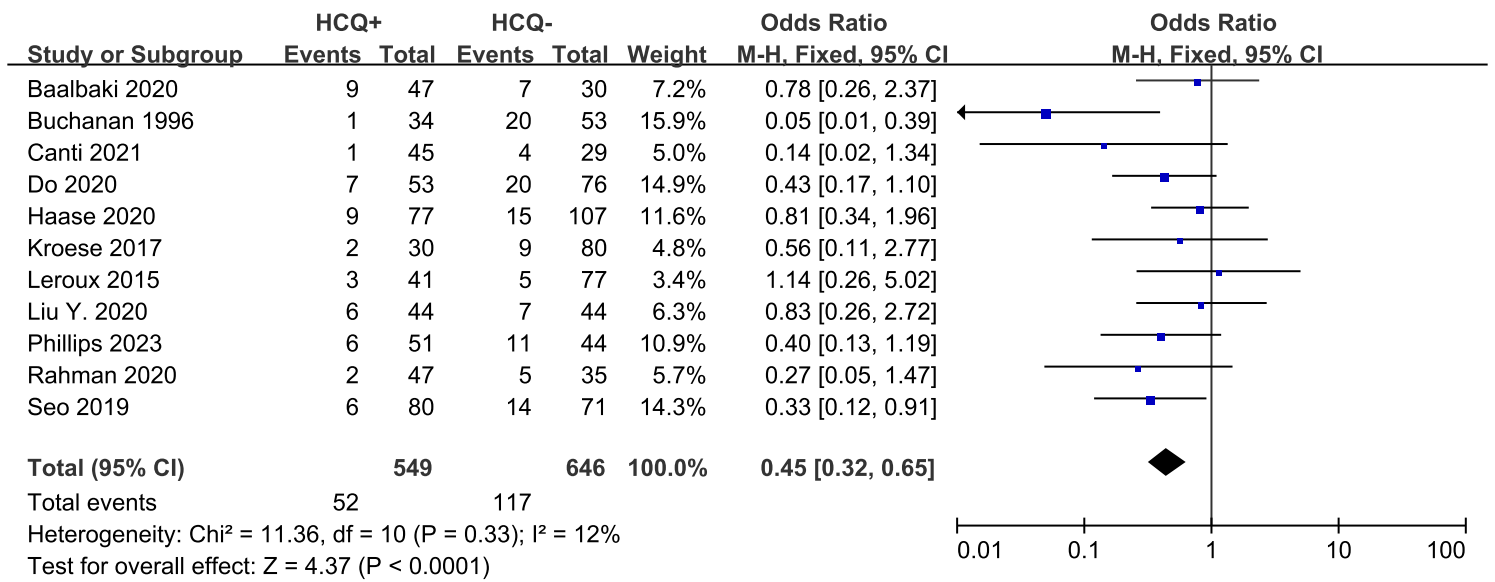
**Total = 1332**

## Supplementary File 2

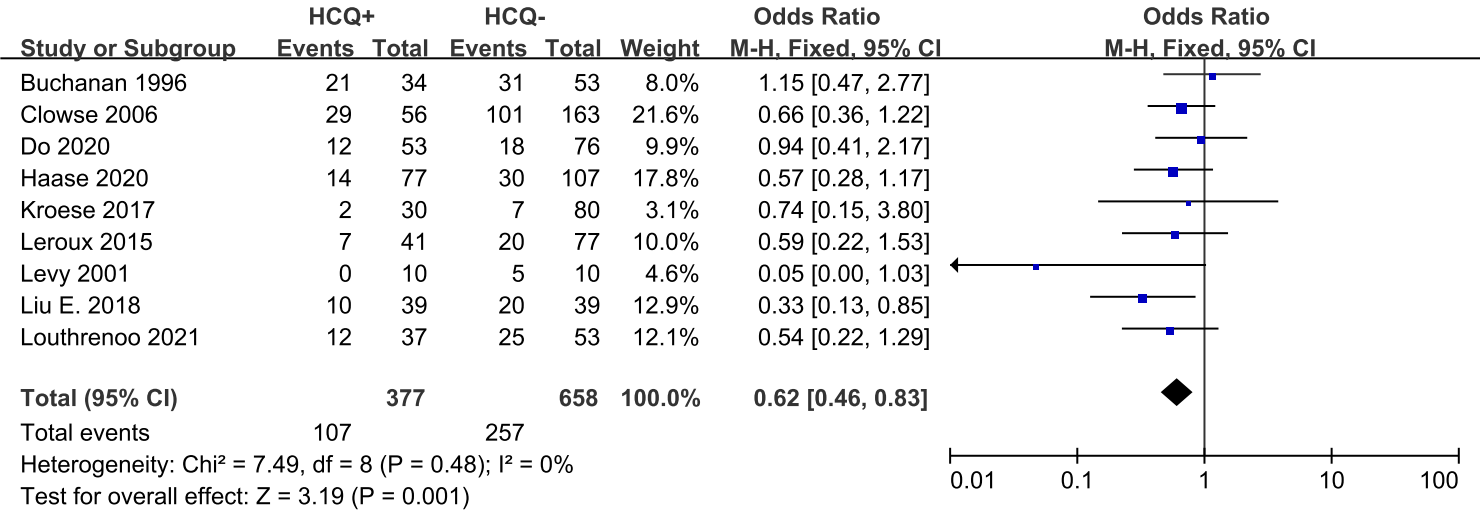




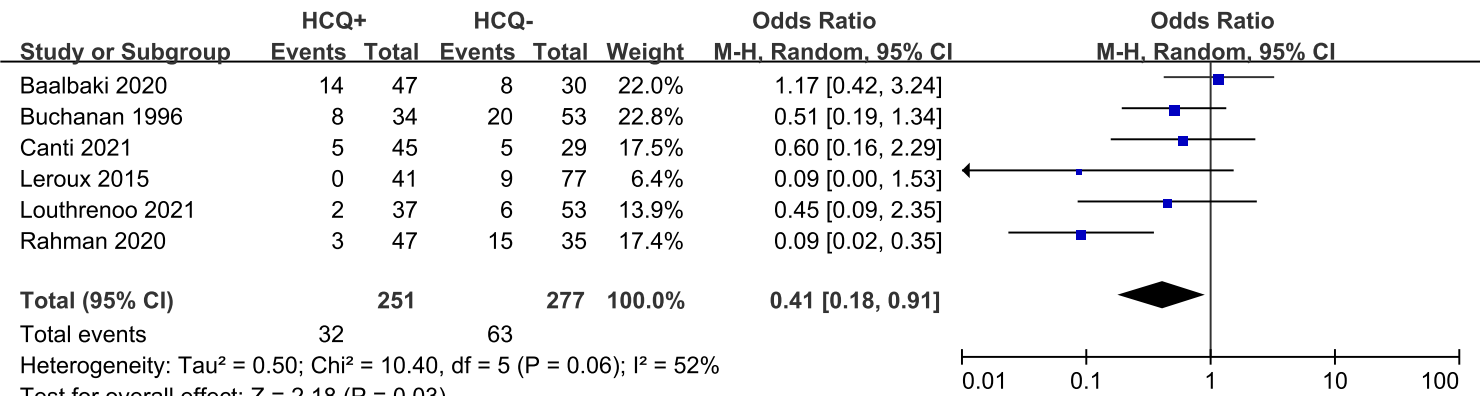
**Supplementary Figure 1.** (A) Forest plot meta-analysis of the RRs for 3 adverse pregnancy outcomes (preeclampsia, high lupus activity, premature delivery) in pregnant patients with SLE receiving HCQ compared to controls, after excluding case-control studies. (B) Forest plot meta-analysis of the ORs for gestational hypertension in pregnant patients with SLE receiving HCQ compared to controls. (C) Forest plot meta-analysis of the WMD (kg) of fetal birth weight in pregnant patients with SLE receiving HCQ vs. controls.



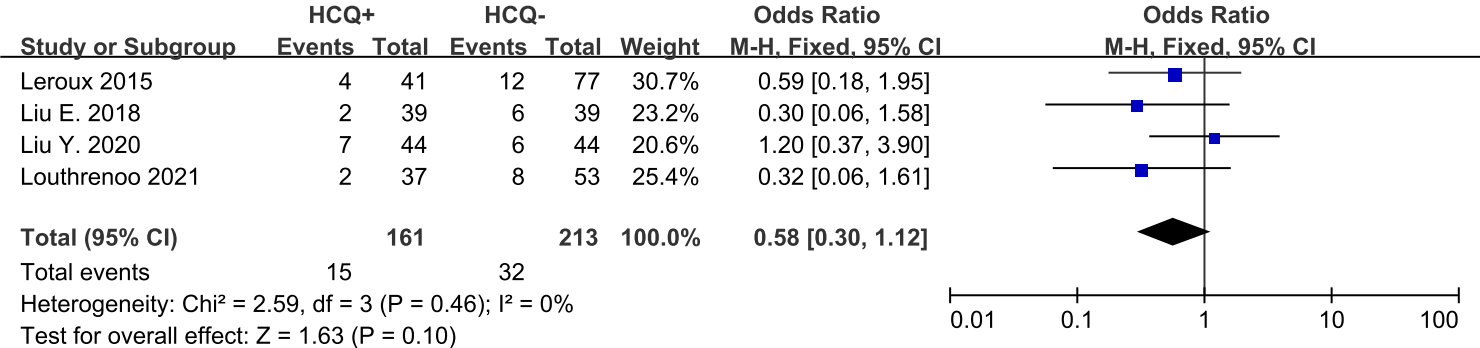
Supplementary Figure 2. Forest plot meta-analysis of preeclampsia in pregnant women with SLE receiving HCQ vs. controls.



Supplementary Figure 3. Forest plot meta-analysis of high lupus activity in pregnant women with SLE receiving HCQ vs. controls.

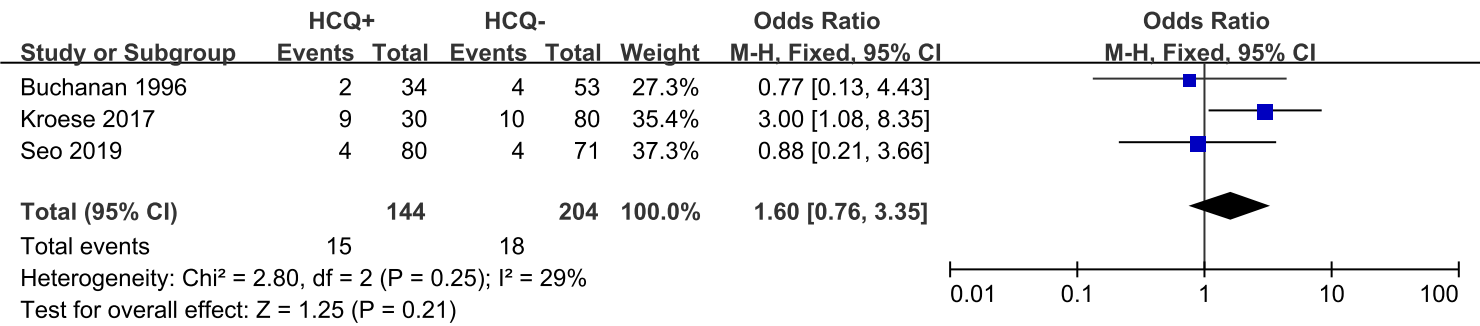


Supplementary Figure 4. Forest plot meta-analysis of gestational hypertension in pregnant women with SLE receiving HCQ vs. controls.

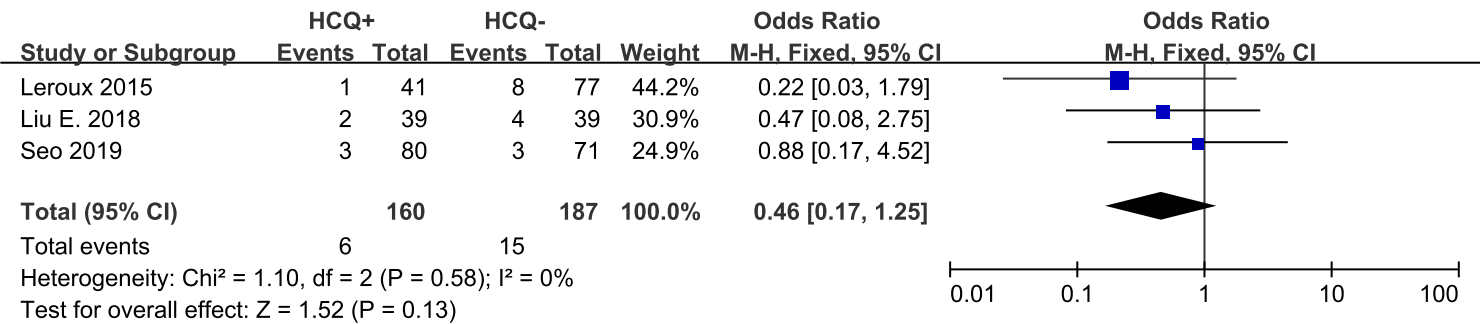


Supplementary Figure 5. Forest plot meta-analysis of premature rupture of membrane in pregnant women with SLE receiving HCQ vs. controls.

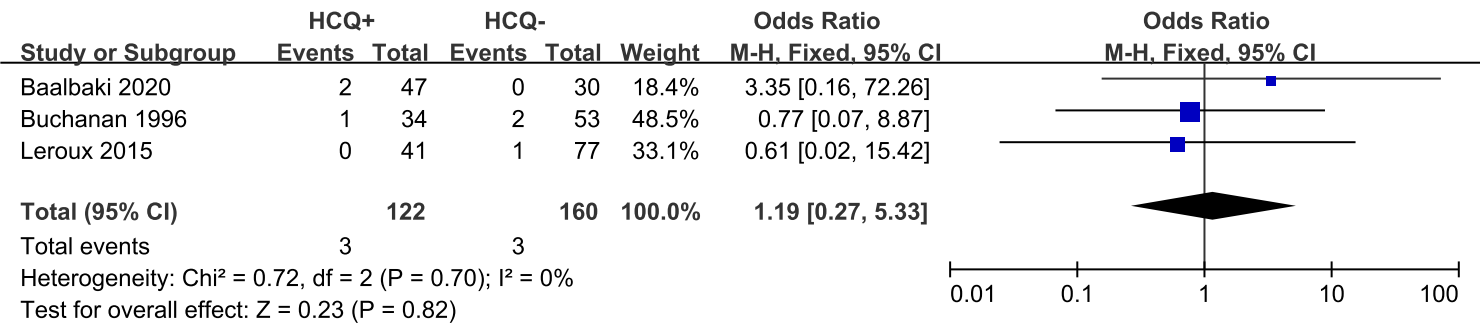




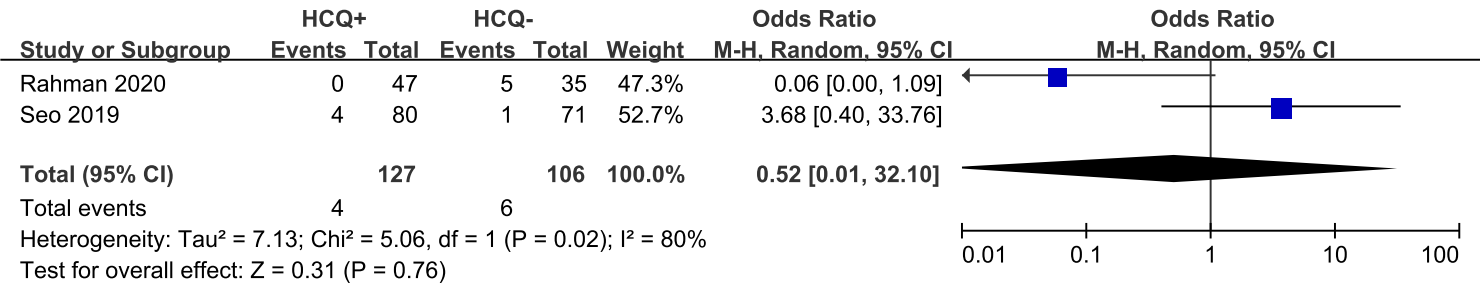
Supplementary Figure 6. Forest plot meta-analysis of spontaneous abortion in pregnant women with SLE receiving HCQ vs. controls.



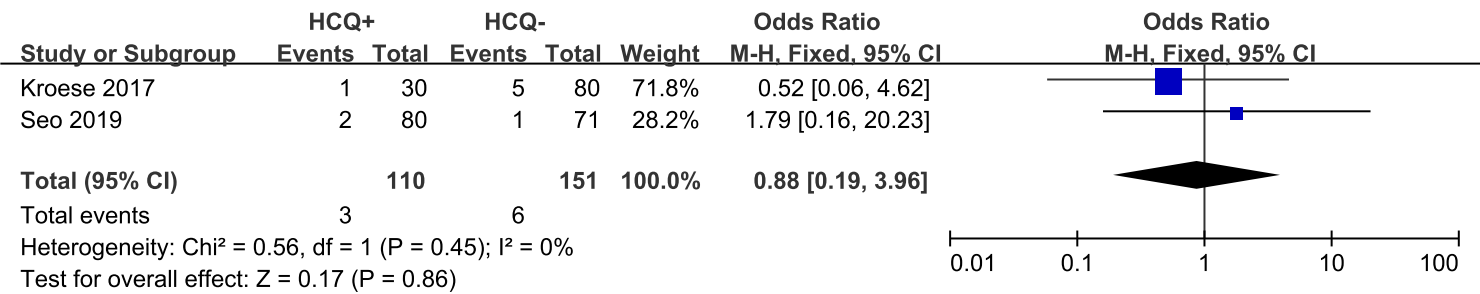
Supplementary Figure 7. Forest plot meta-analysis of oligohydramnios in pregnant women with SLE receiving HCQ vs. controls.



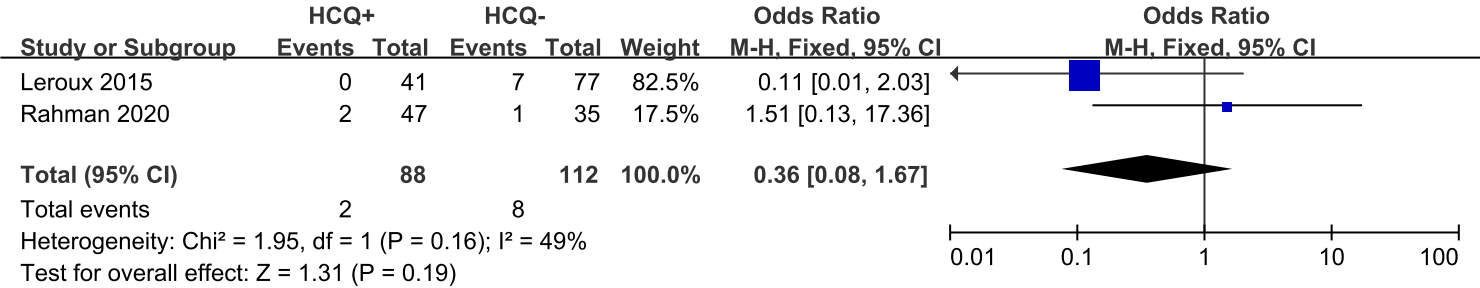
Supplementary Figure 8. Forest plot meta-analysis of thrombotic disease in pregnant women with SLE receiving HCQ vs. controls.



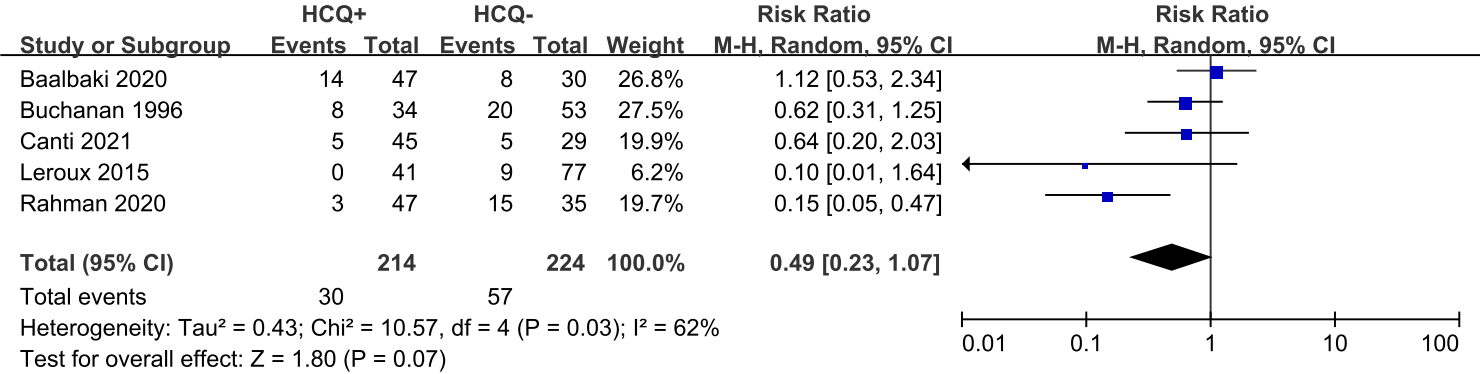
Supplementary Figure 9. Forest plot meta-analysis of gestational diabetes mellitus in pregnant women with SLE receiving HCQ vs. controls.



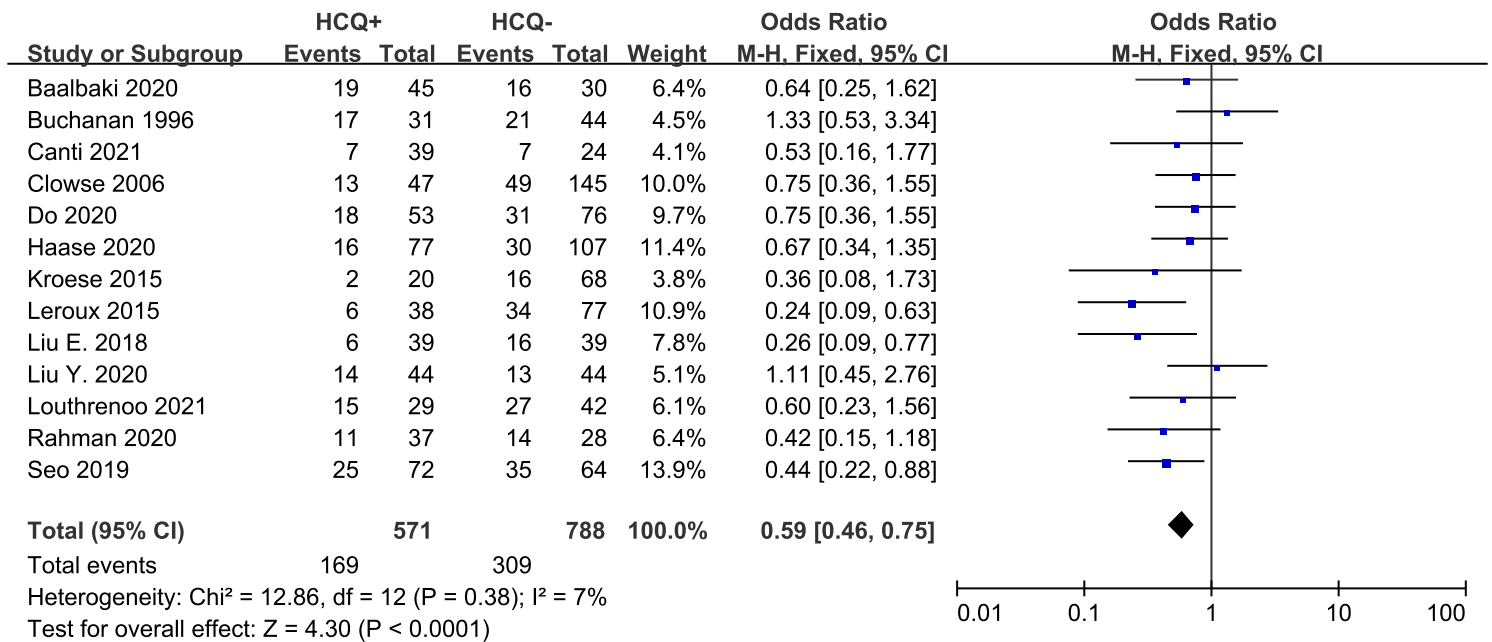
Supplementary Figure 10. Forest plot meta-analysis of HELLP syndrome in pregnant women with SLE receiving HCQ vs. controls.



Supplementary Figure 11. Forest plot meta-analysis of immune thrombocytopenia in pregnant women with SLE receiving HCQ vs. controls.

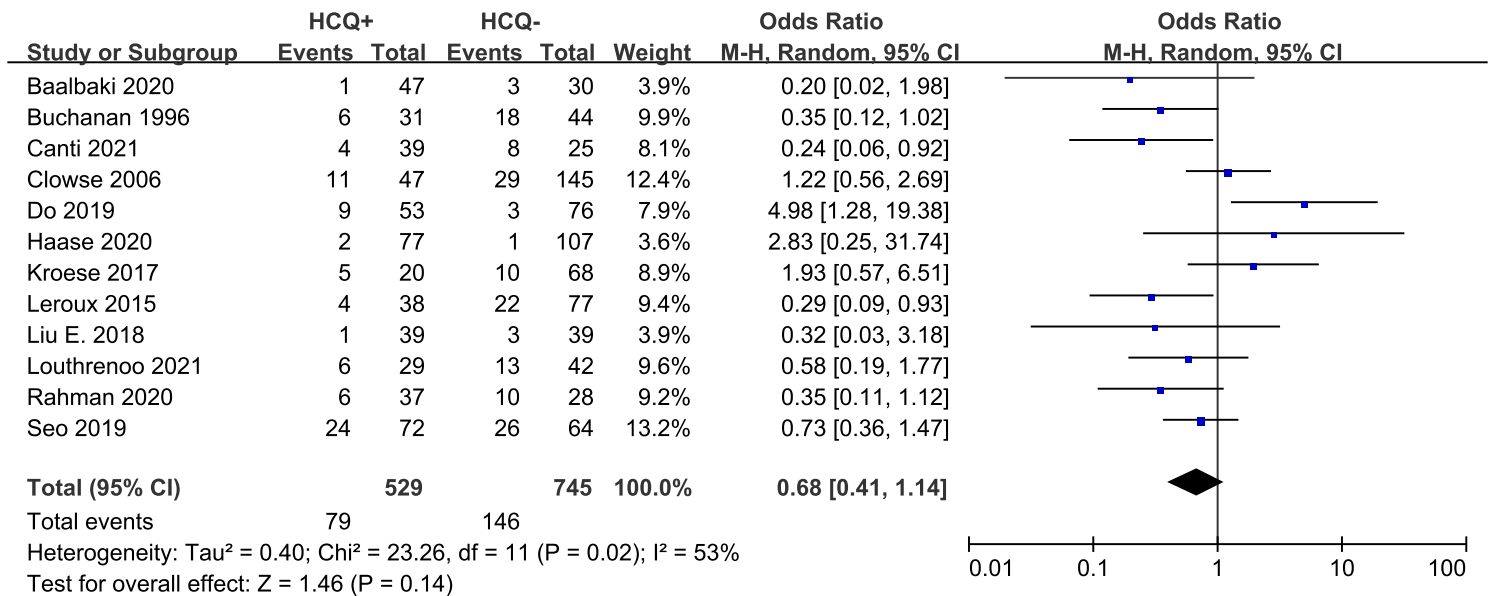


Supplementary Figure 12. Forest plot meta-analysis of gestational hypertension (RR) in pregnant women with SLE receiving HCQ vs. controls.

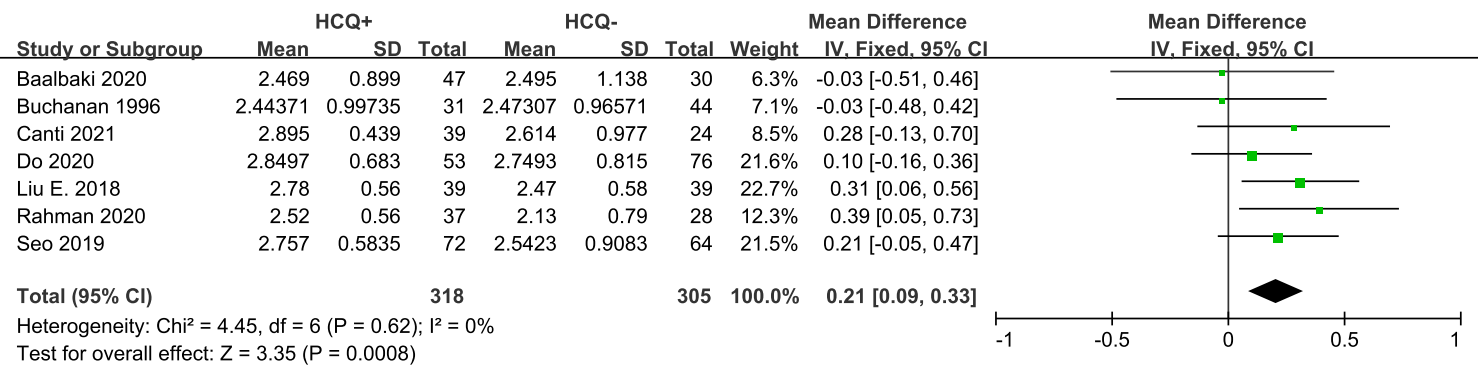


Supplementary Figure 13. Forest plot meta-analysis of premature delivery in pregnant women with SLE receiving HCQ vs. controls.

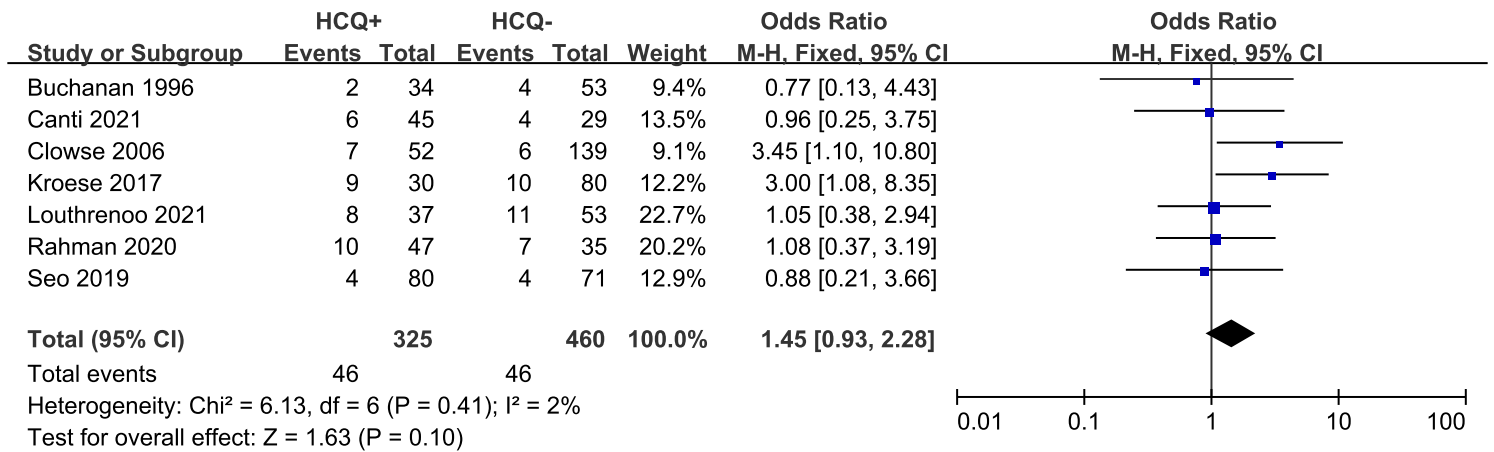




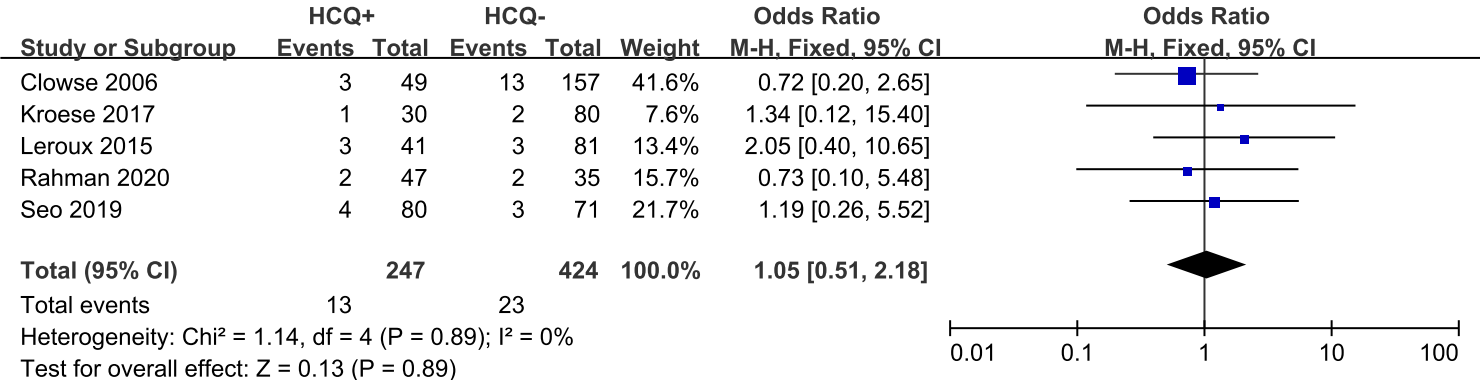
Supplementary Figure 14. Forest plot meta-analysis of fetal growth restriction in pregnant women with SLE receiving HCQ vs. controls.



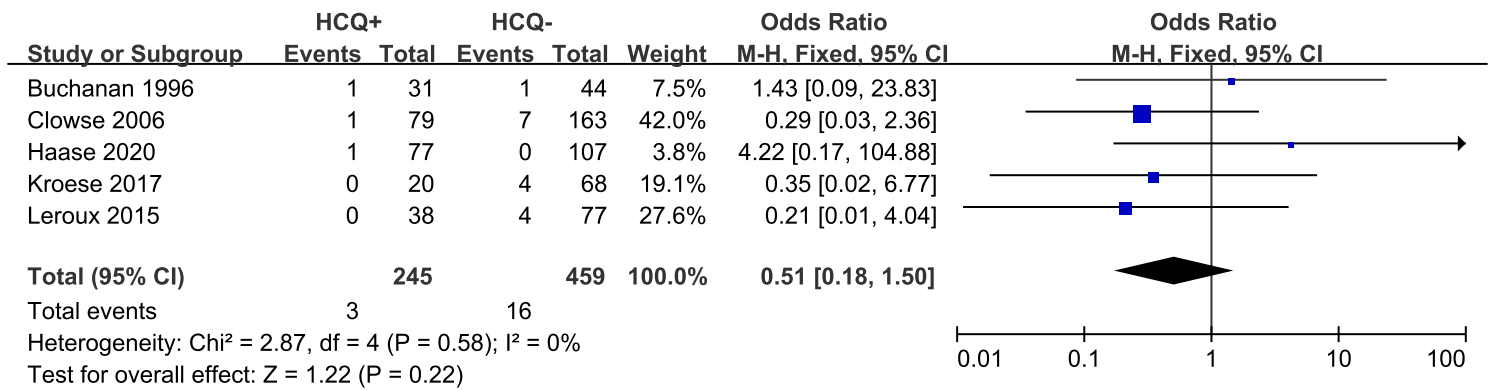
Supplementary Figure 15. Forest plot meta-analysis of birth weight (kg) in pregnant women with SLE receiving HCQ vs.controls.



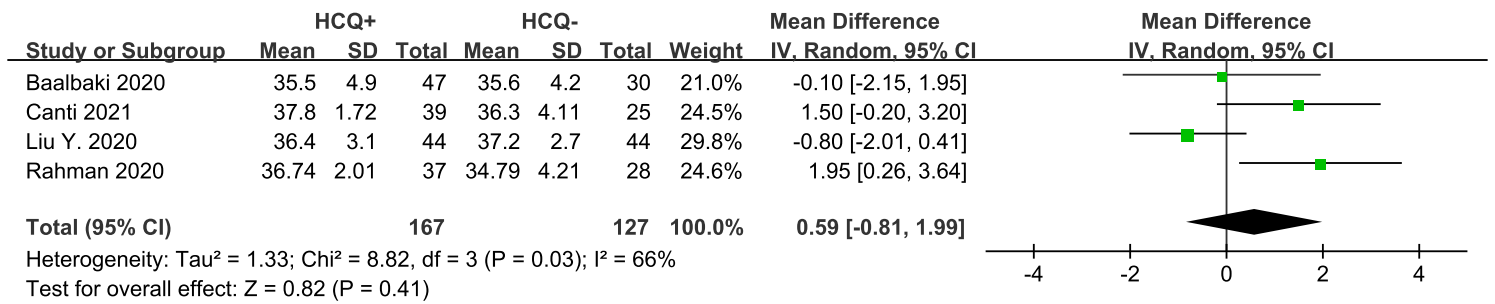
Supplementary Figure 16. Forest plot meta-analysis of miscarriage in pregnant women with SLE receiving HCQ vs.controls.



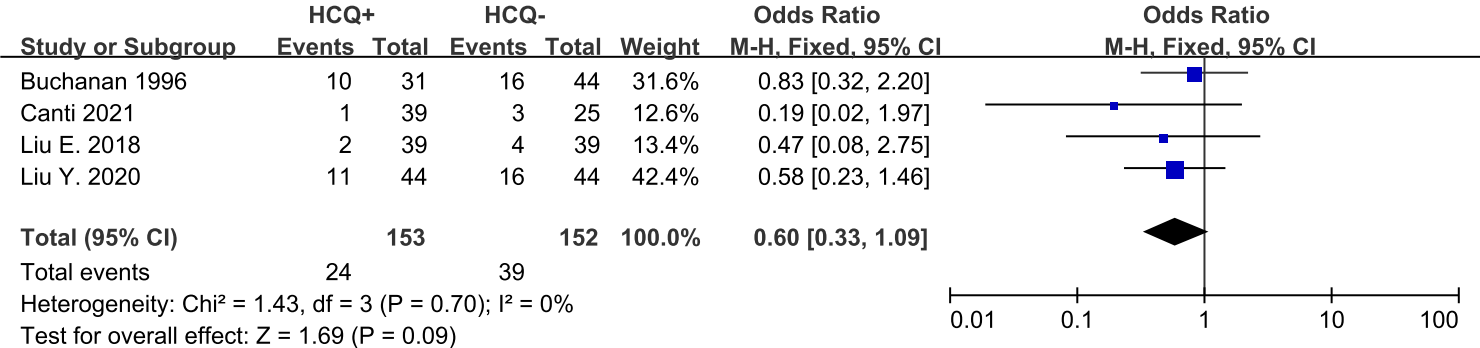
Supplementary Figure 17. Forest plot meta-analysis of stillbirth in pregnant women with SLE receiving HCQ vs.controls.



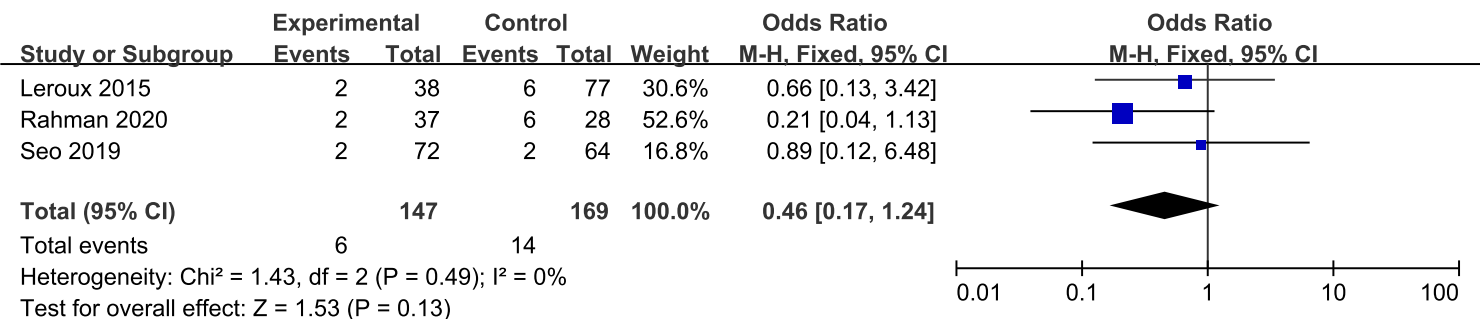
Supplementary Figure 18. Forest plot meta-analysis of congenital malformation in pregnant women with SLE receiving HCQ vs. controls.



Supplementary Figure 19. Forest plot meta-analysis of gestational age at delivery (wk) in pregnant women with SLE receiving HCQ vs. controls.

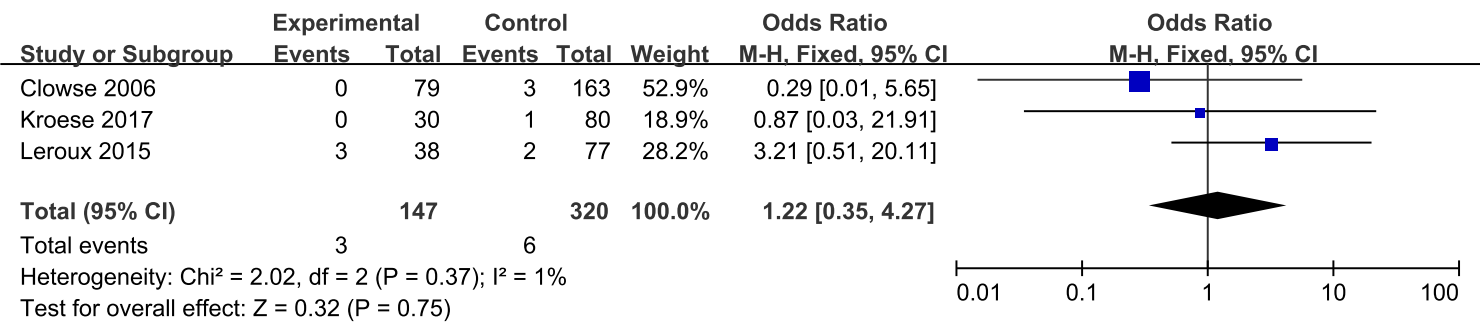


Supplementary Figure 20. Forest plot meta-analysis of intrauterine distress in pregnant women with SLE receiving HCQ vs. controls.

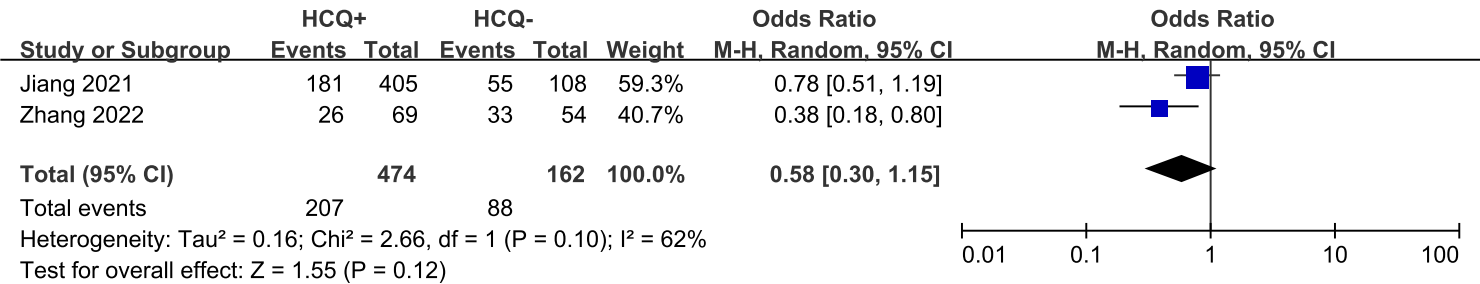


Supplementary Figure 21. Forest plot meta-analysis of 5-minute APGAR score <7 in pregnant women with SLE receiving HCQ vs. controls.



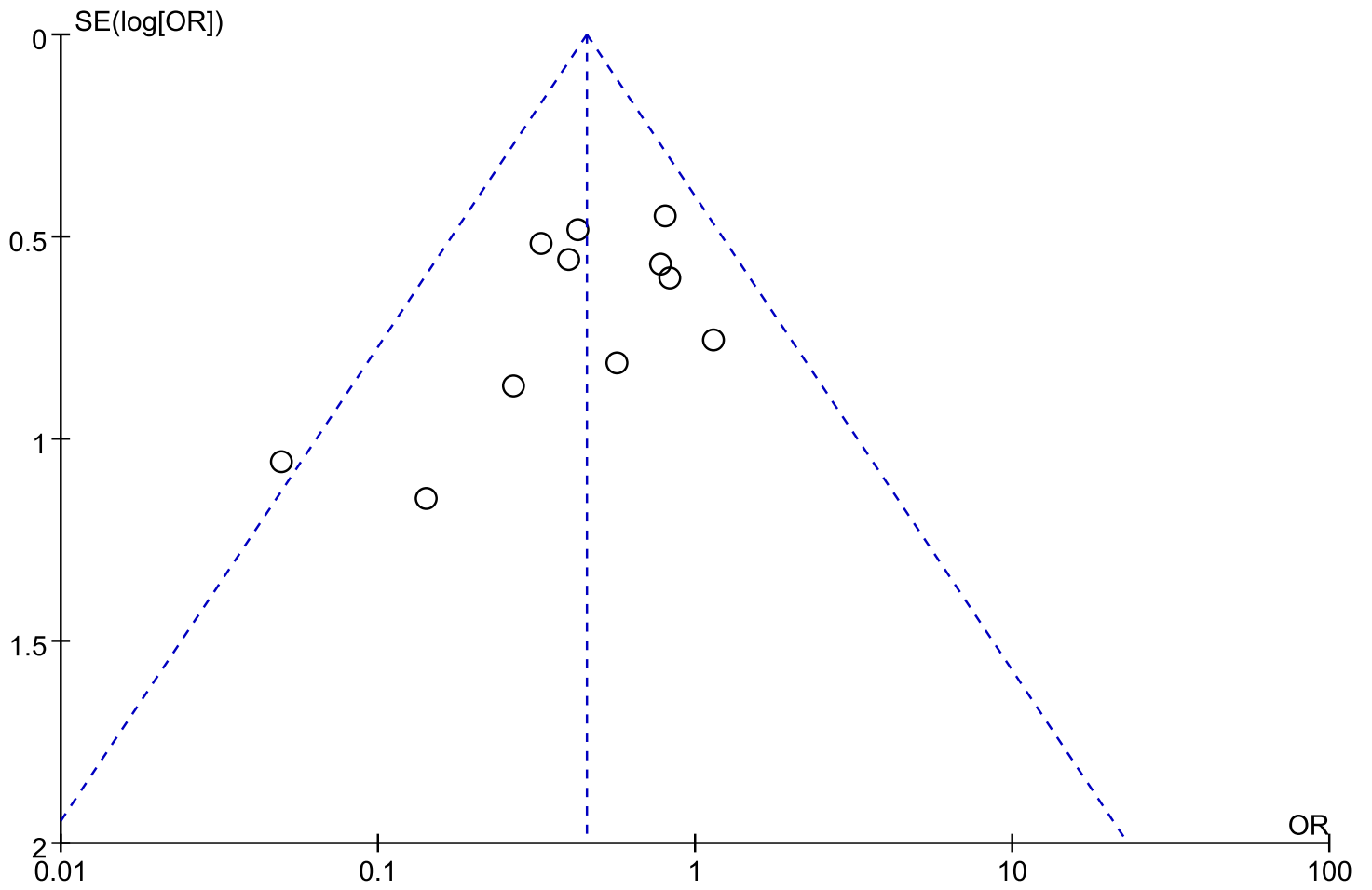


Supplementary Figure 22. Forest plot meta-analysis of neonatal lupus in pregnant women with SLE receiving HCQ vs. controls.

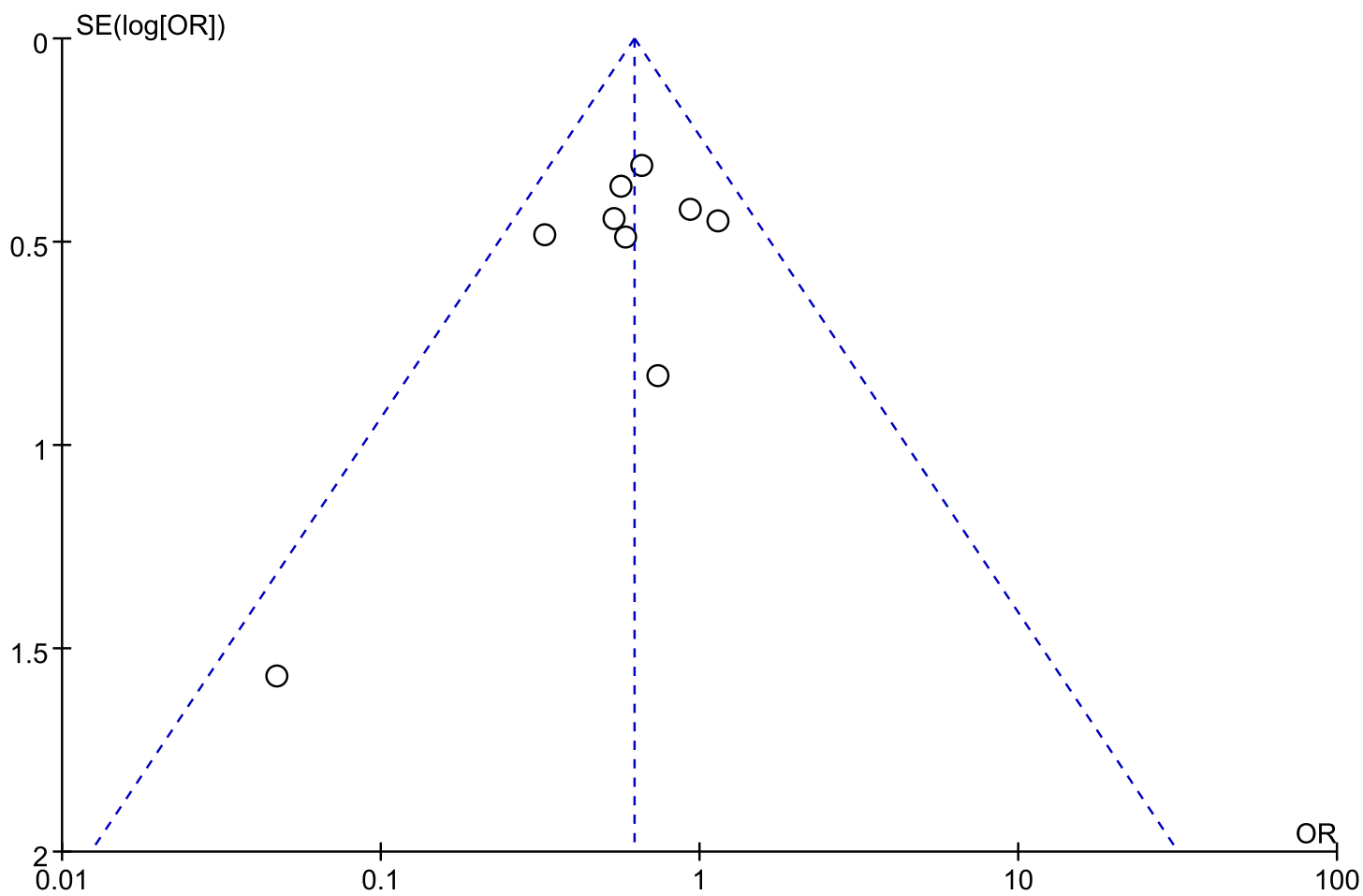


Supplementary Figure 23. Forest plot meta-analysis of fetal adverse pregnancy outcomes in pregnant women with SLE receiving HCQ vs. controls.

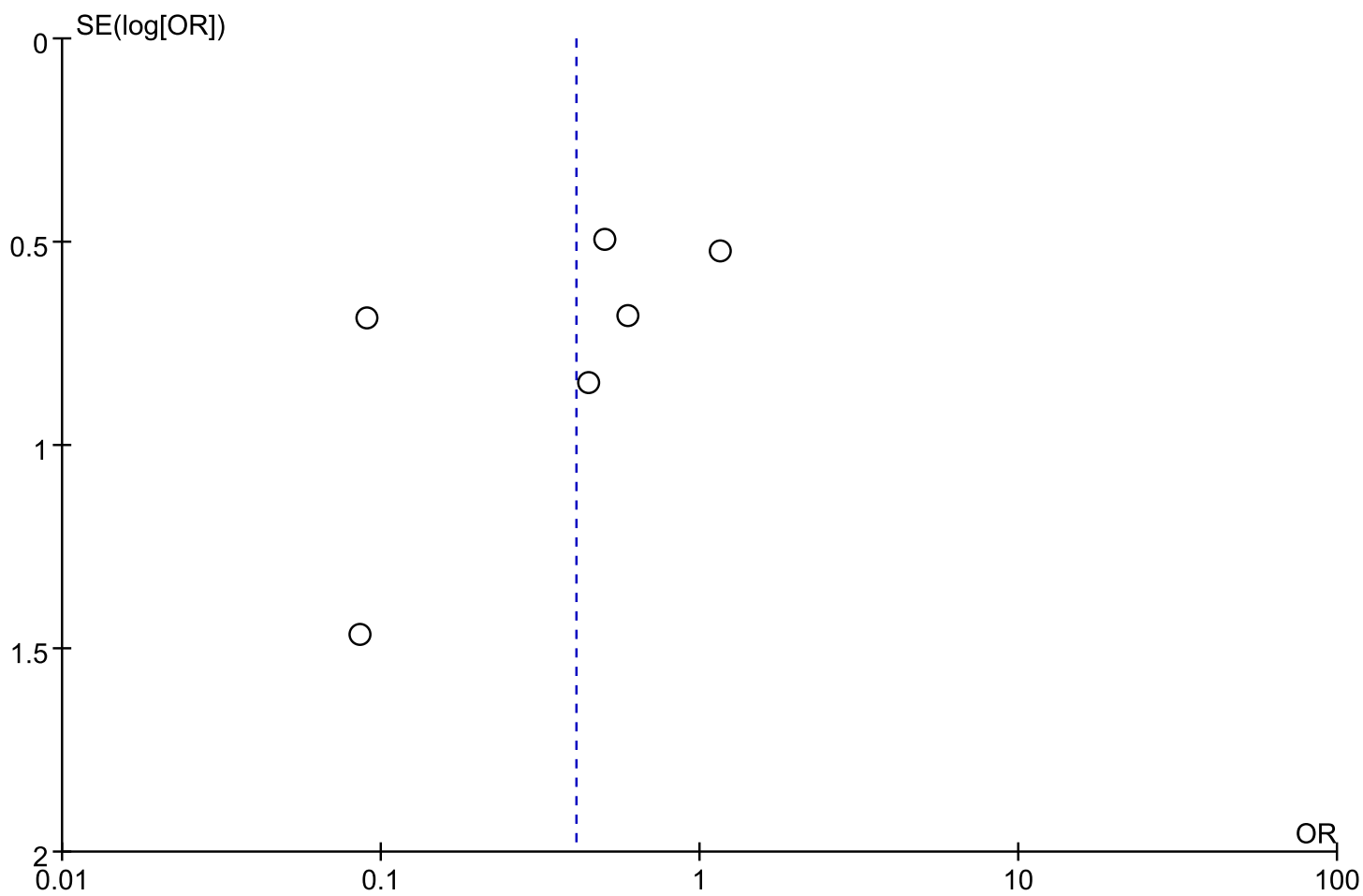
# Supplementary File 3



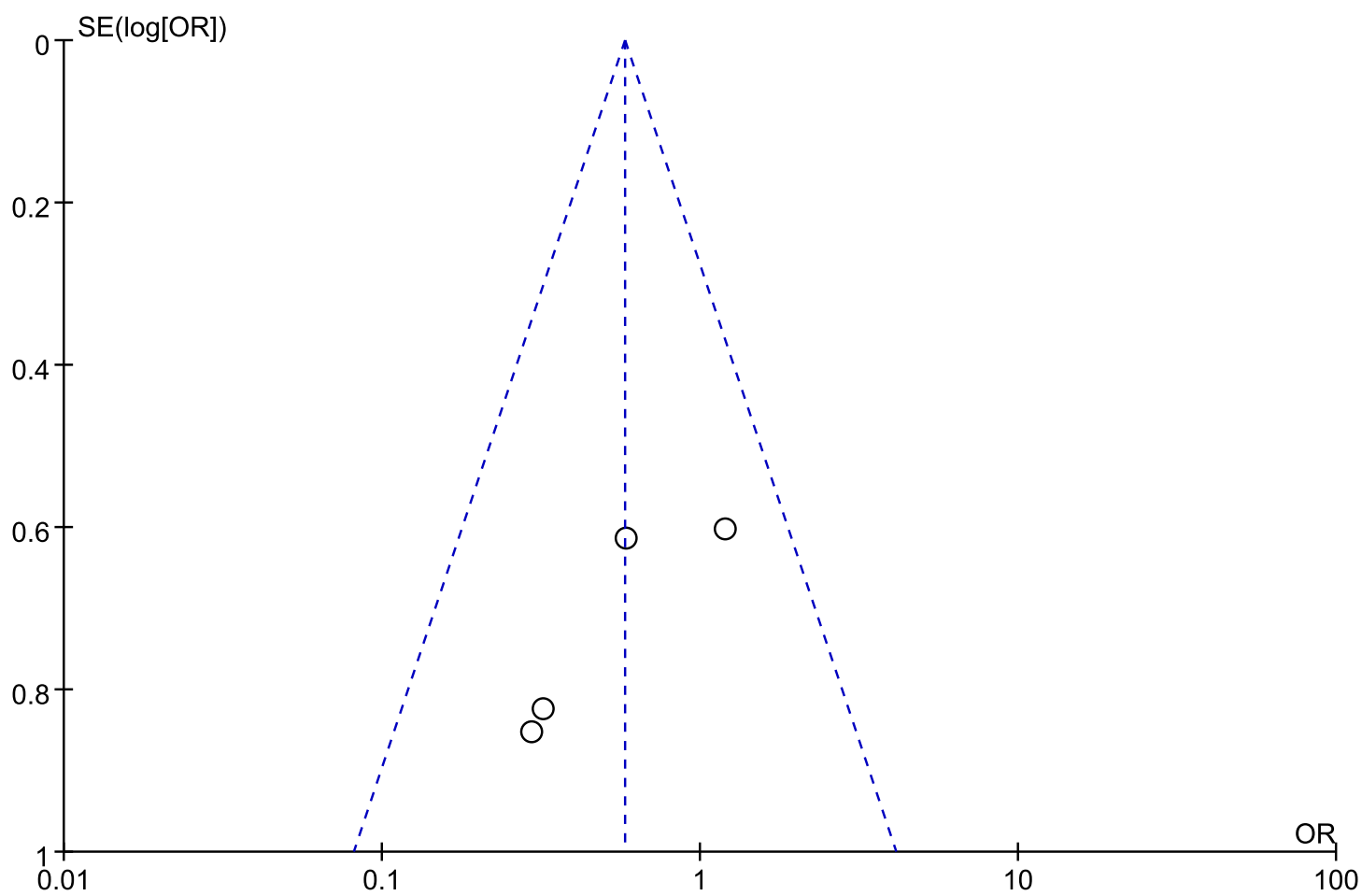
Supplementary Figure 24. Funnel plot of preeclampsia.



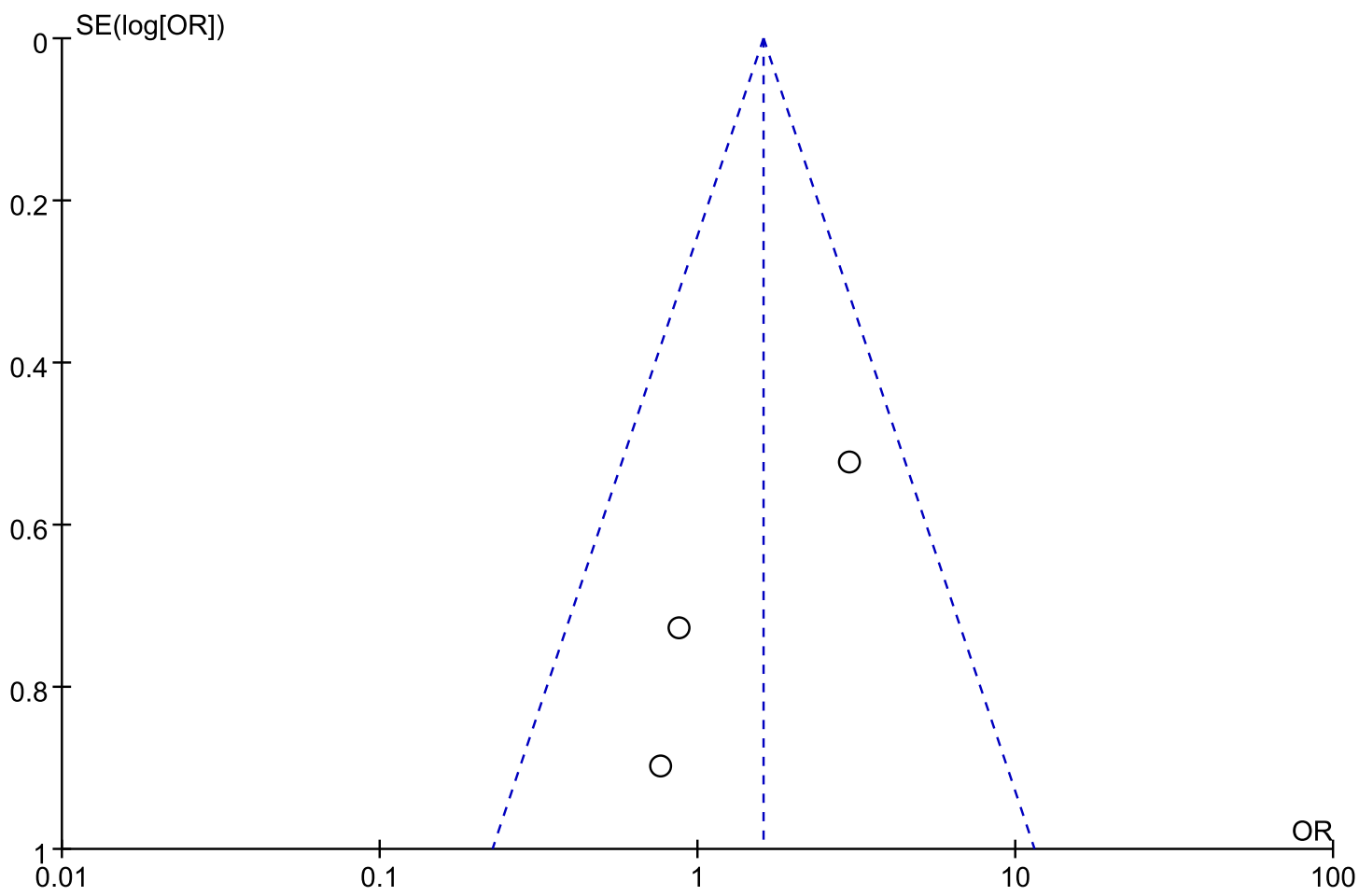
Supplementary Figure 25. Funnel plot of high lupus activity.



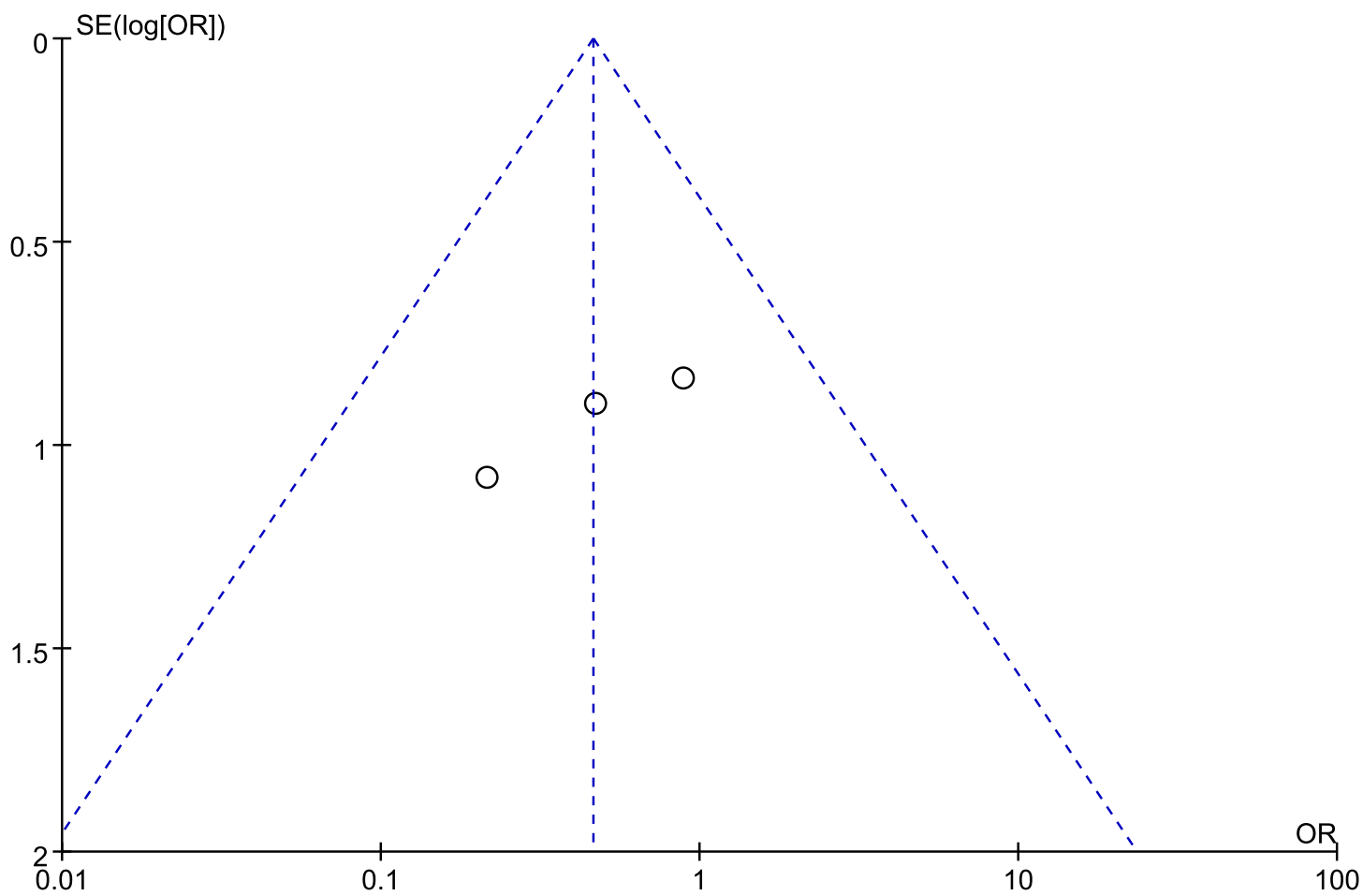
Supplementary Figure 26. Funnel plot of gestational hypertension.



Supplementary Figure 27. Funnel plot of premature rupture of membrane.

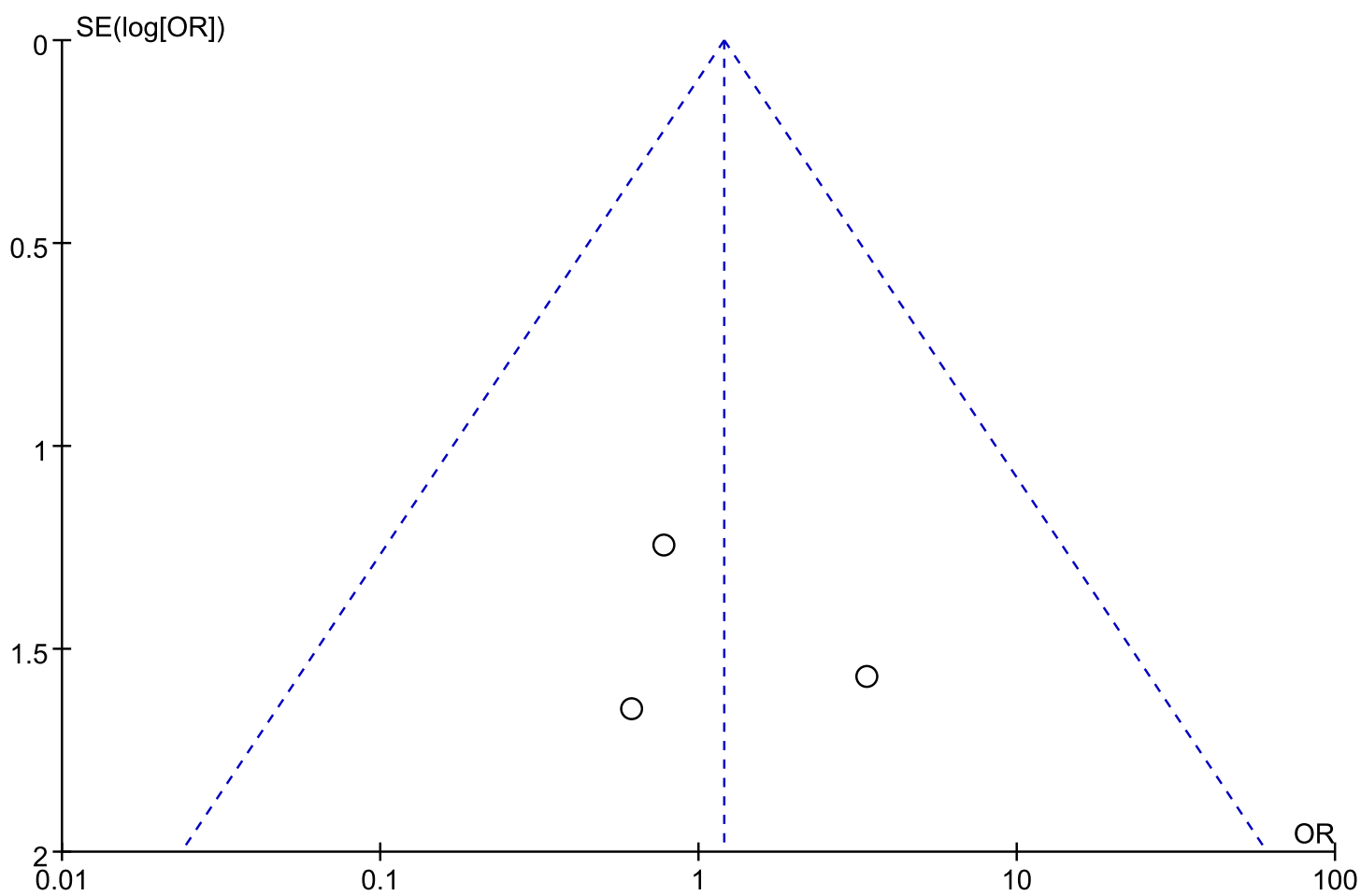


Supplementary Figure 28. Funnel plot of spontaneous abortion.

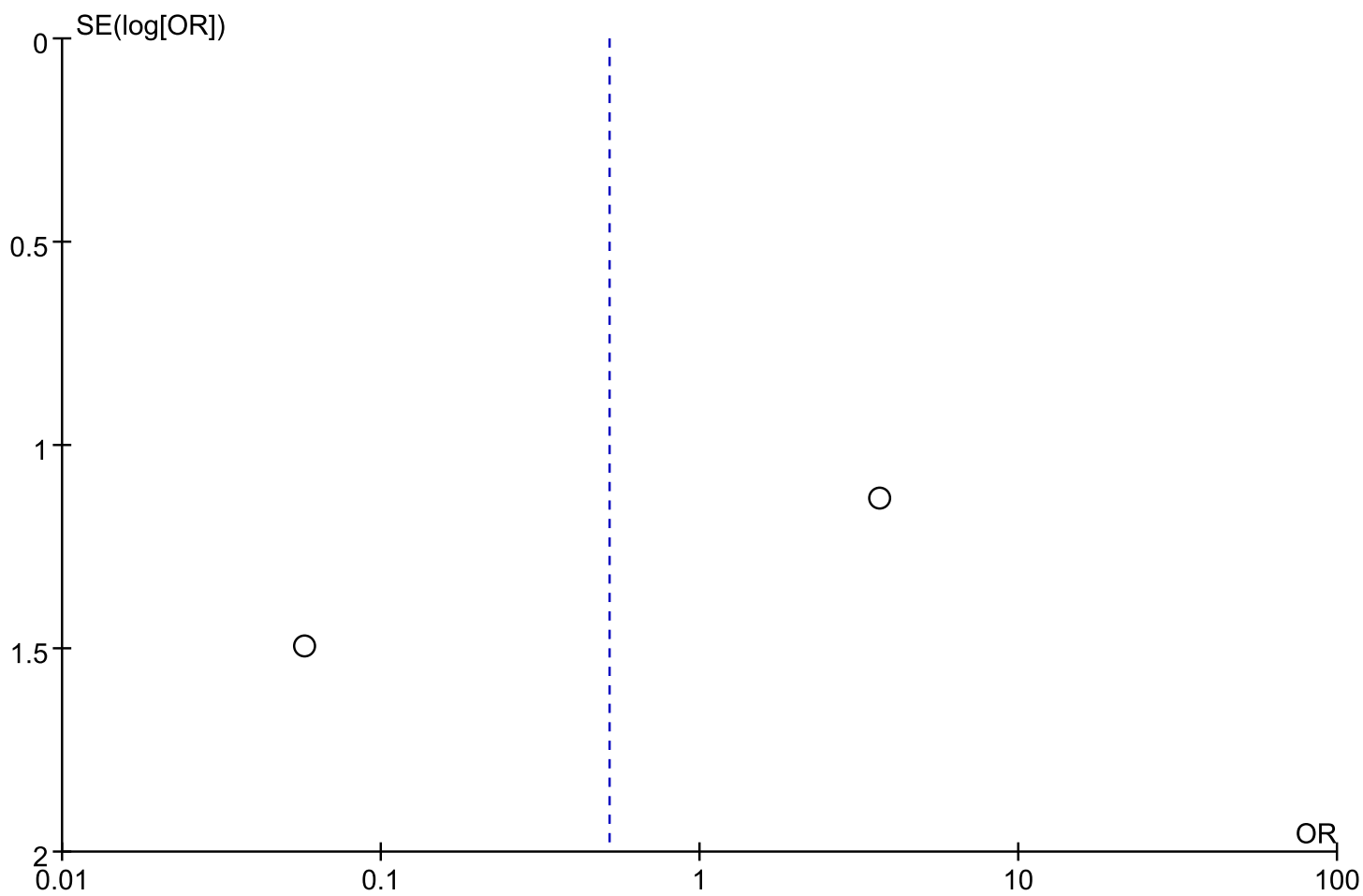


Supplementary Figure 29. Funnel plot of oligohydramnios.

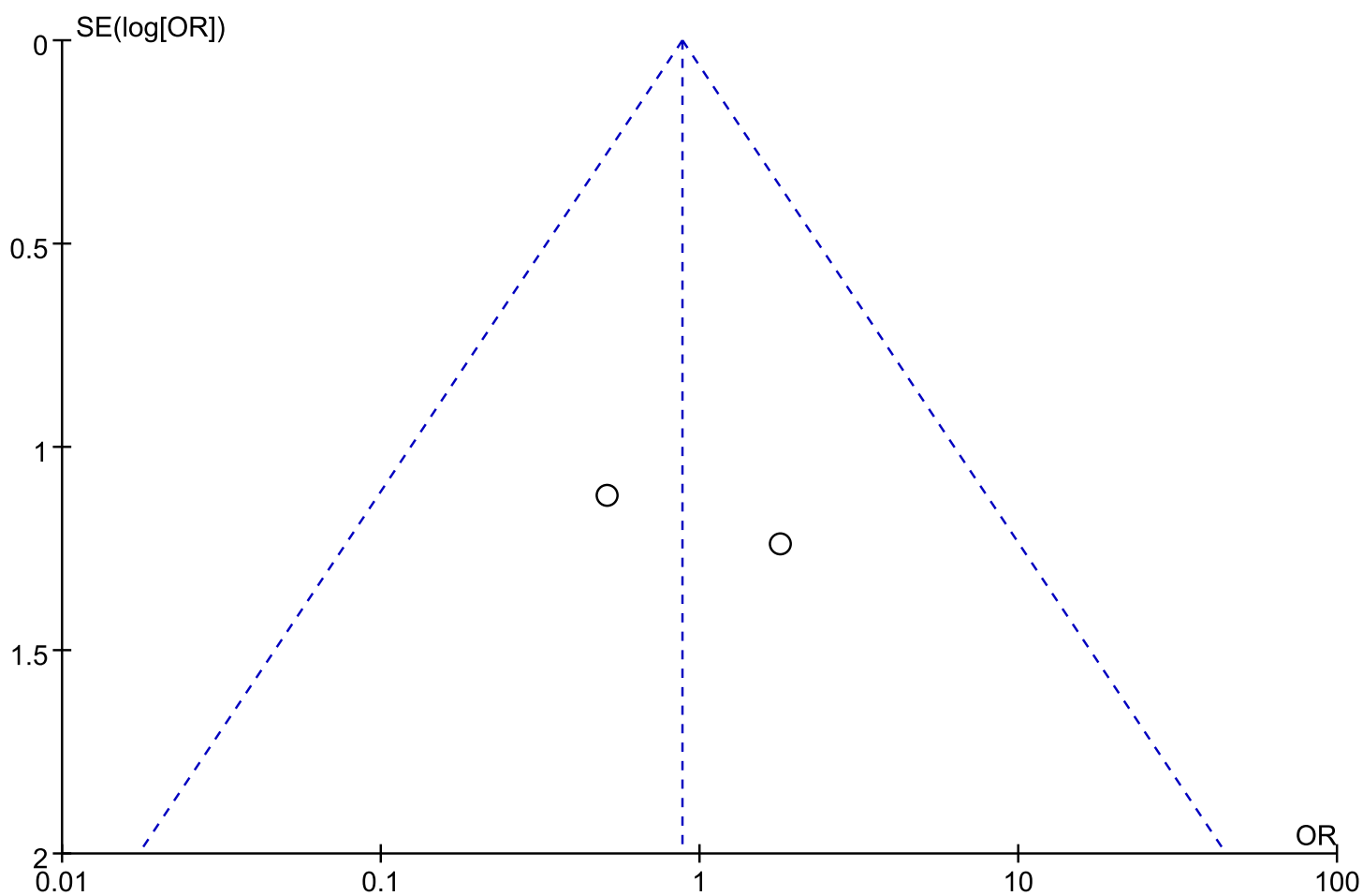




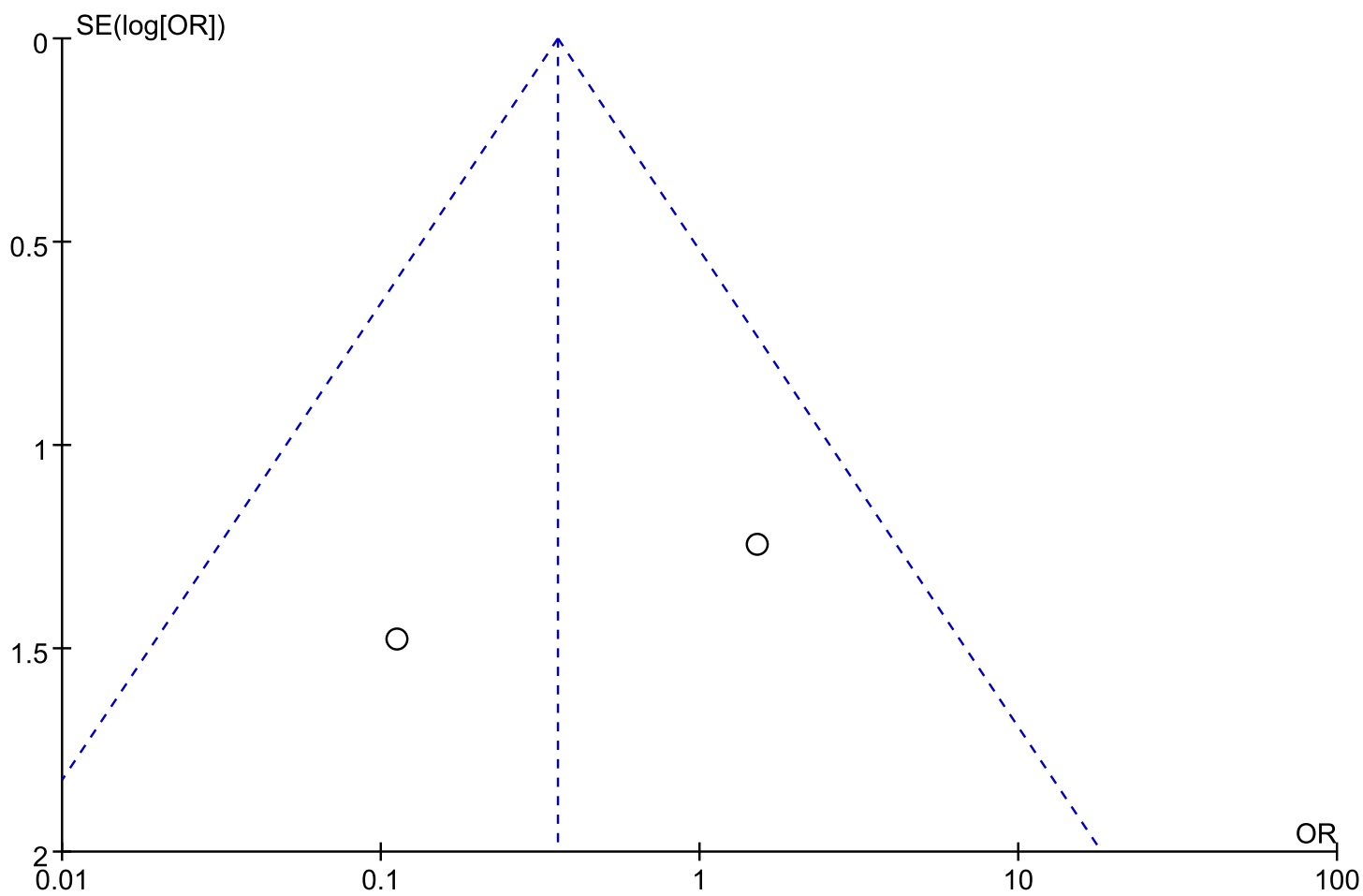
Supplementary Figure 30. Funnel plot of thrombotic disease.



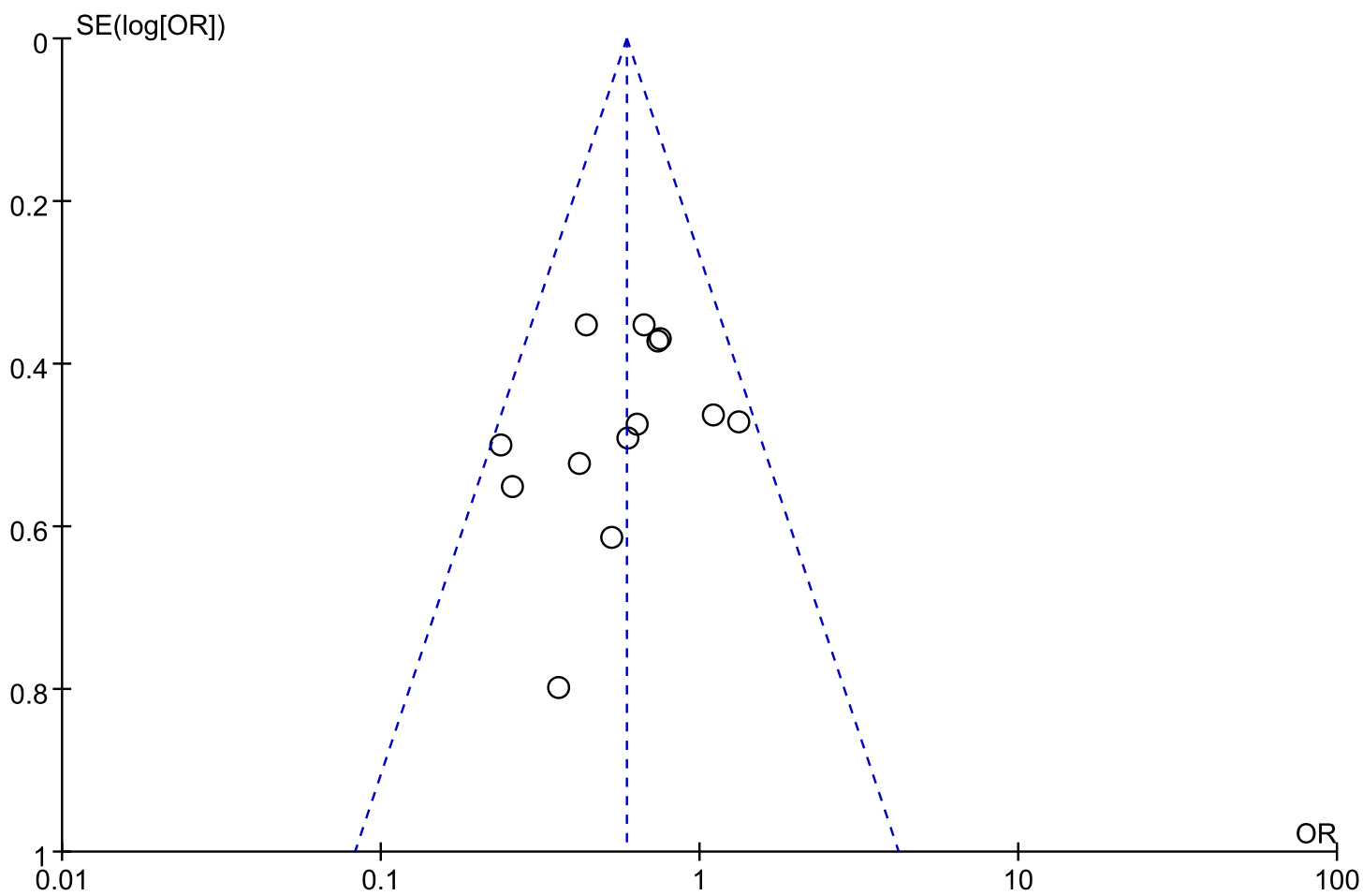
Supplementary Figure 31. Funnel plot of gestational diabetes mellitus.



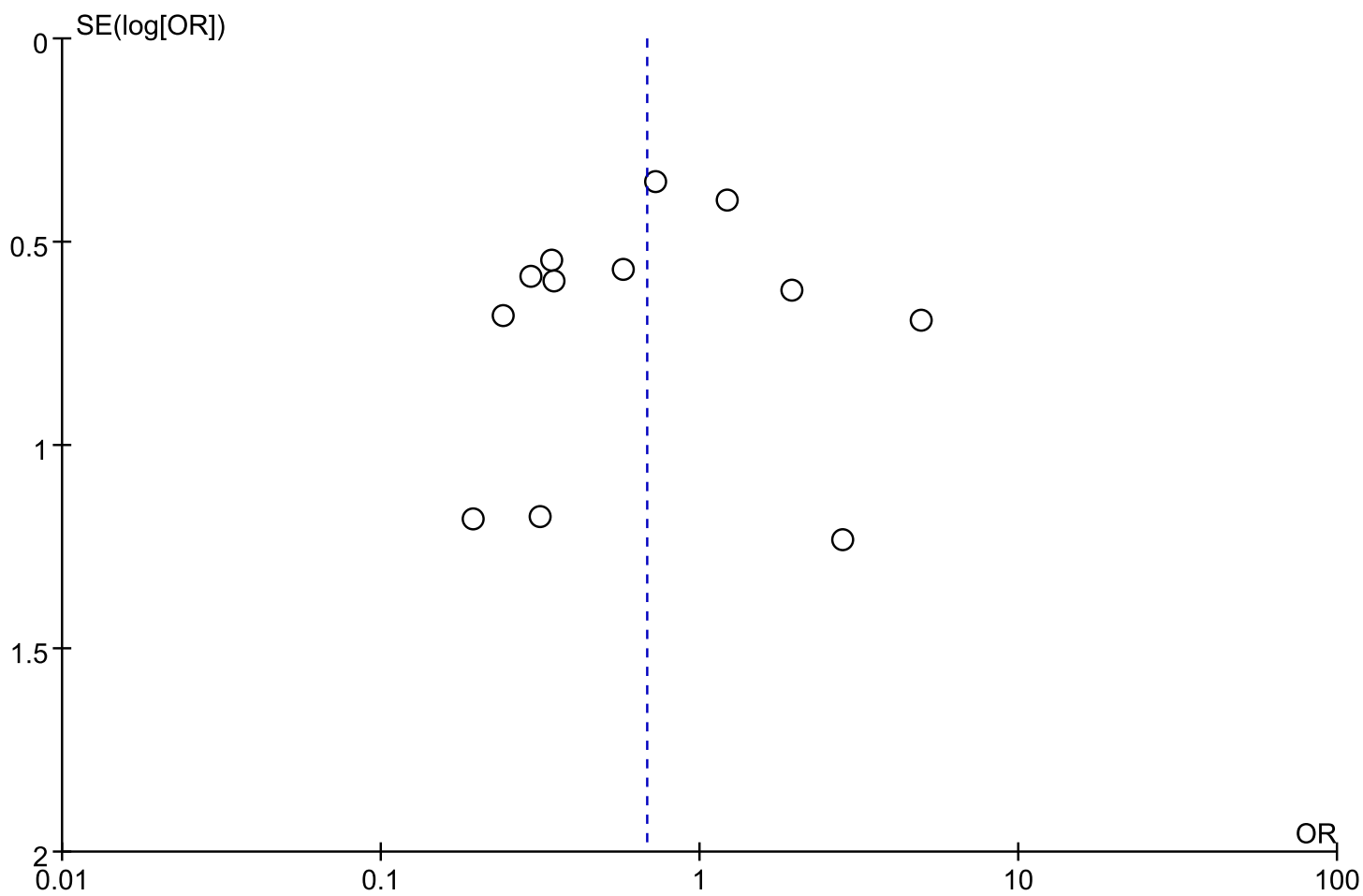
Supplementary Figure 32. Funnel plot of HELLP syndrome.



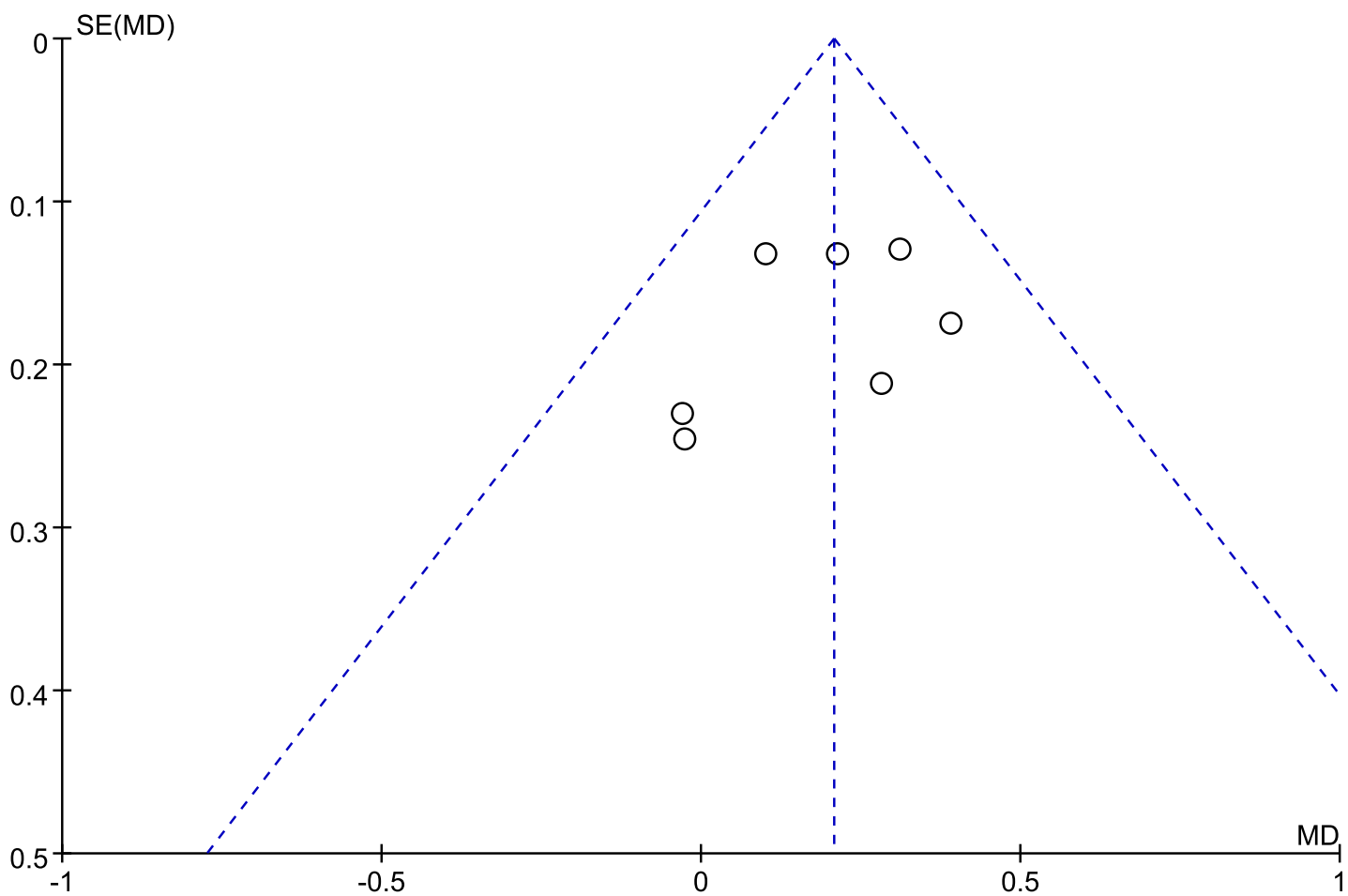
Supplementary Figure 33. Funnel plot of immune thrombocytopenia.



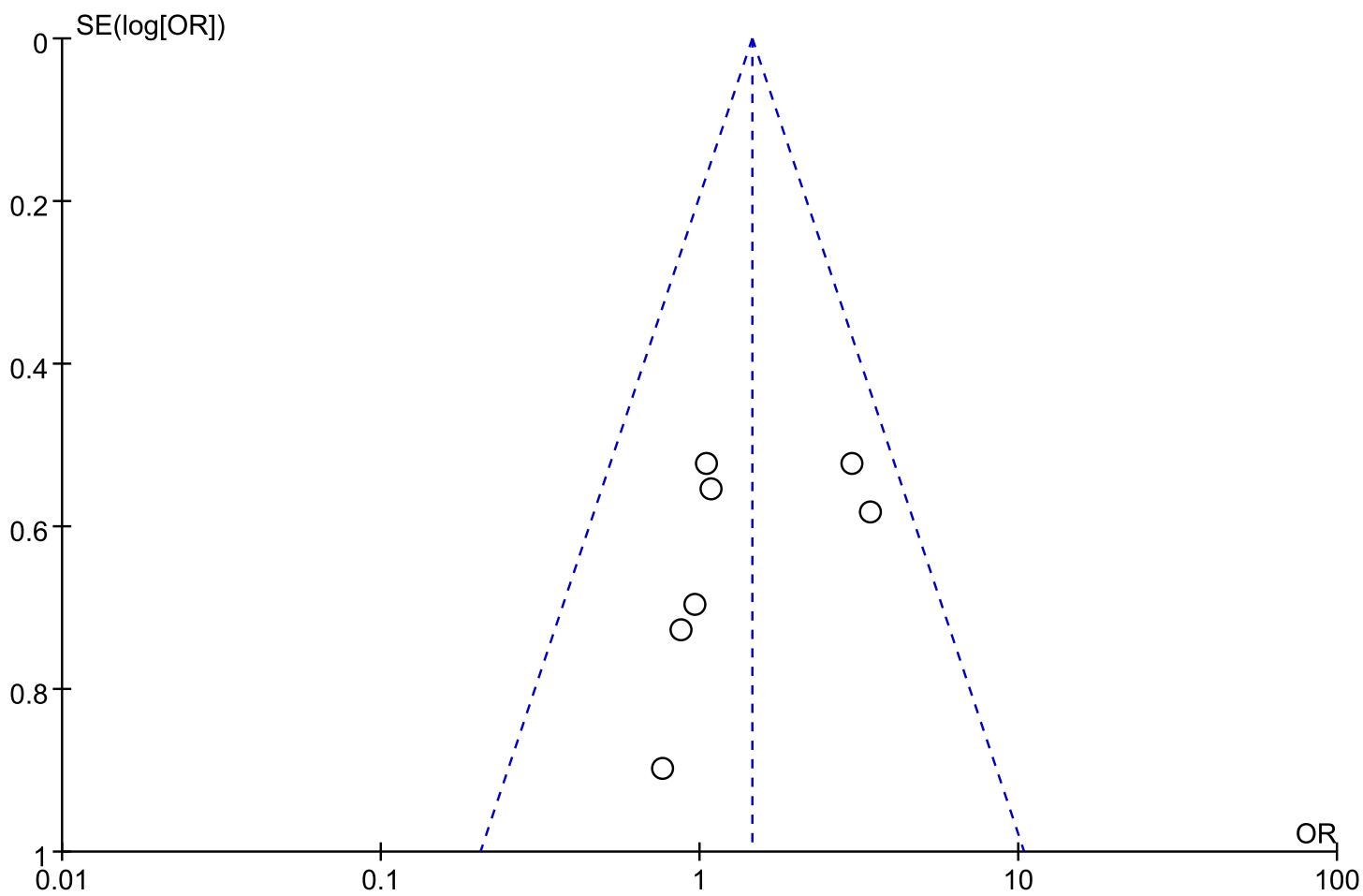
Supplementary Figure 34. Funnel plot of premature delivery.



Supplementary Figure 35. Funnel plot of fetal growth restriction.

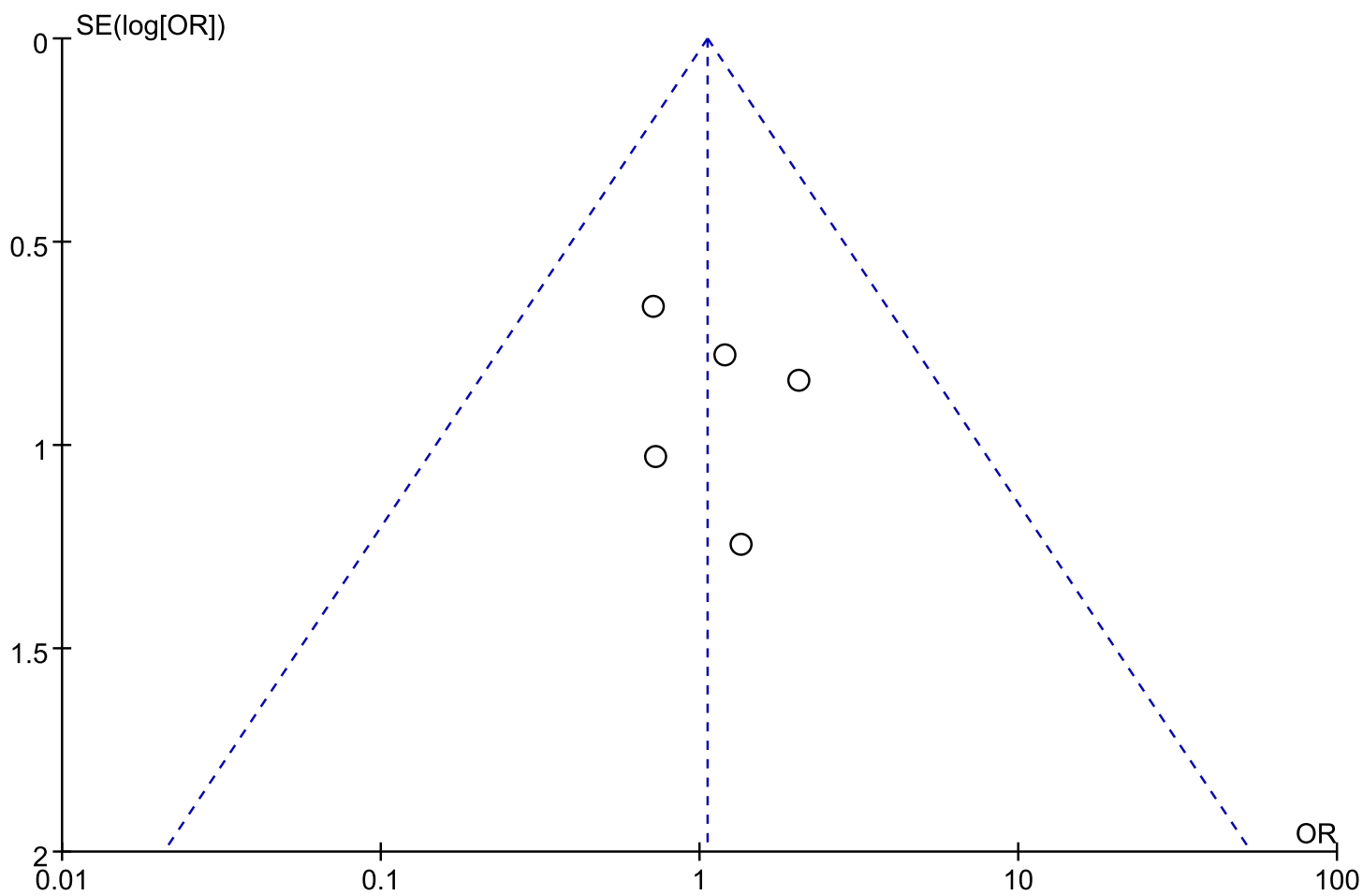


Supplementary Figure 36. Funnel plot of birth weight.

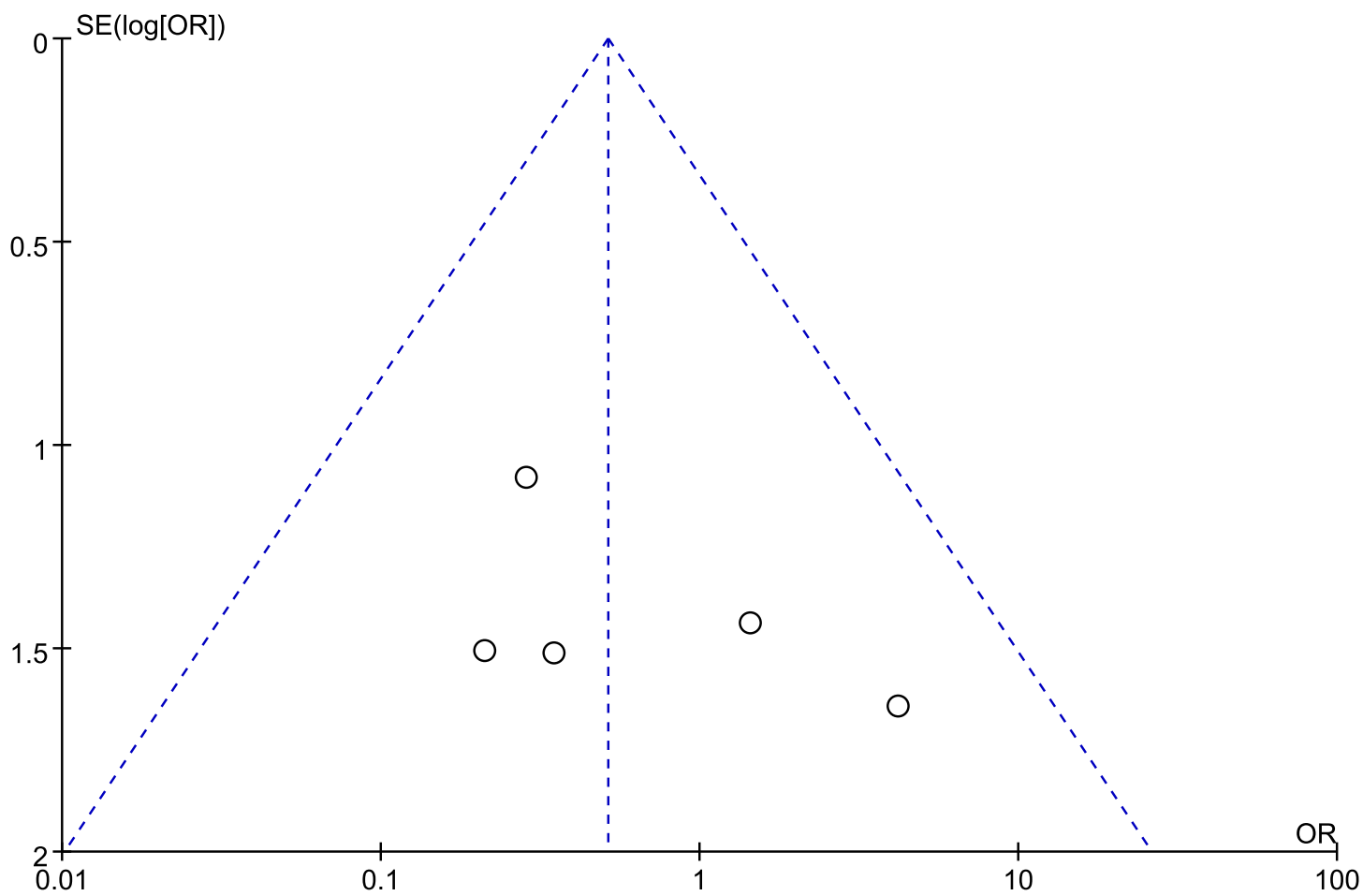


Supplementary Figure 37. Funnel plot of miscarriage.

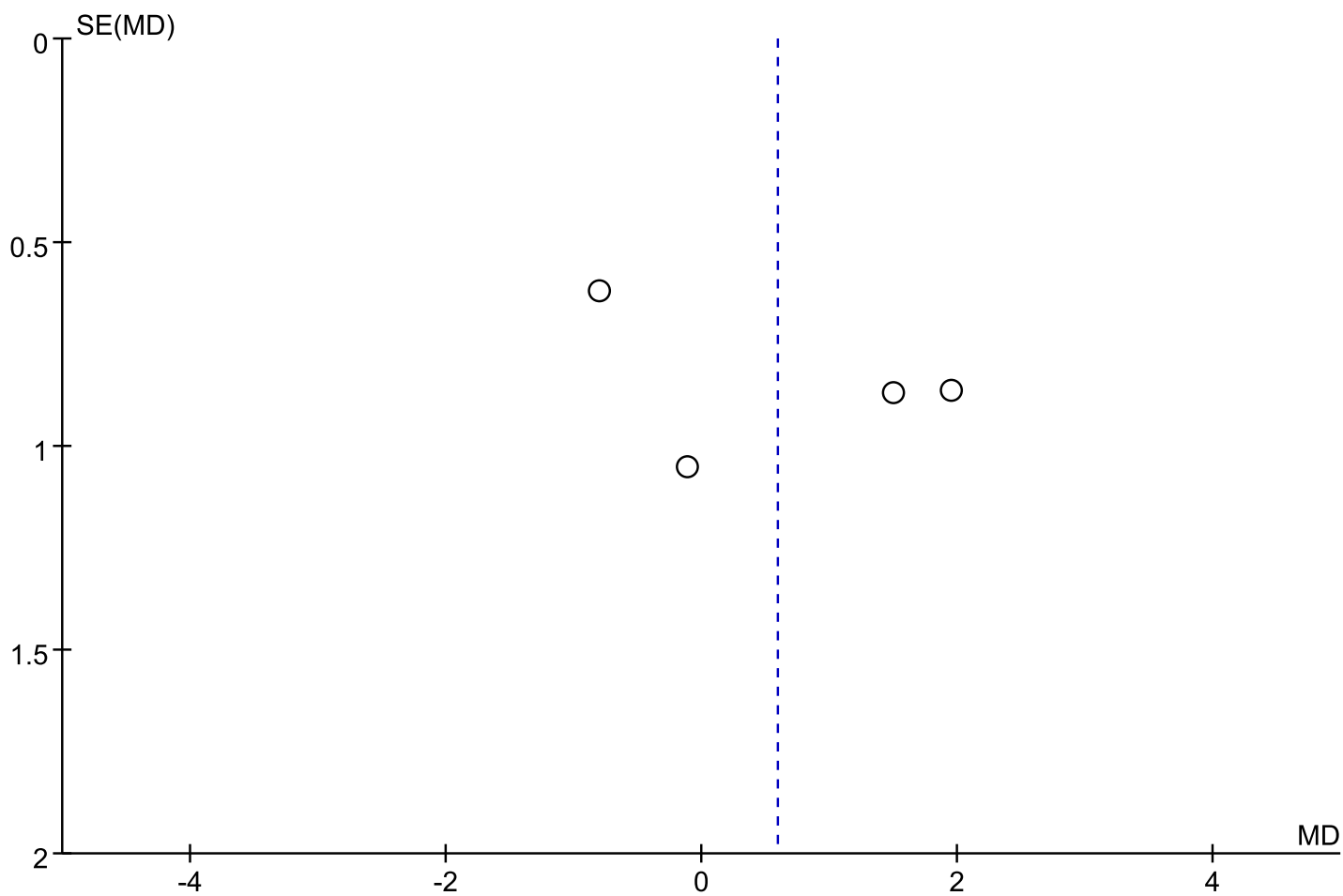




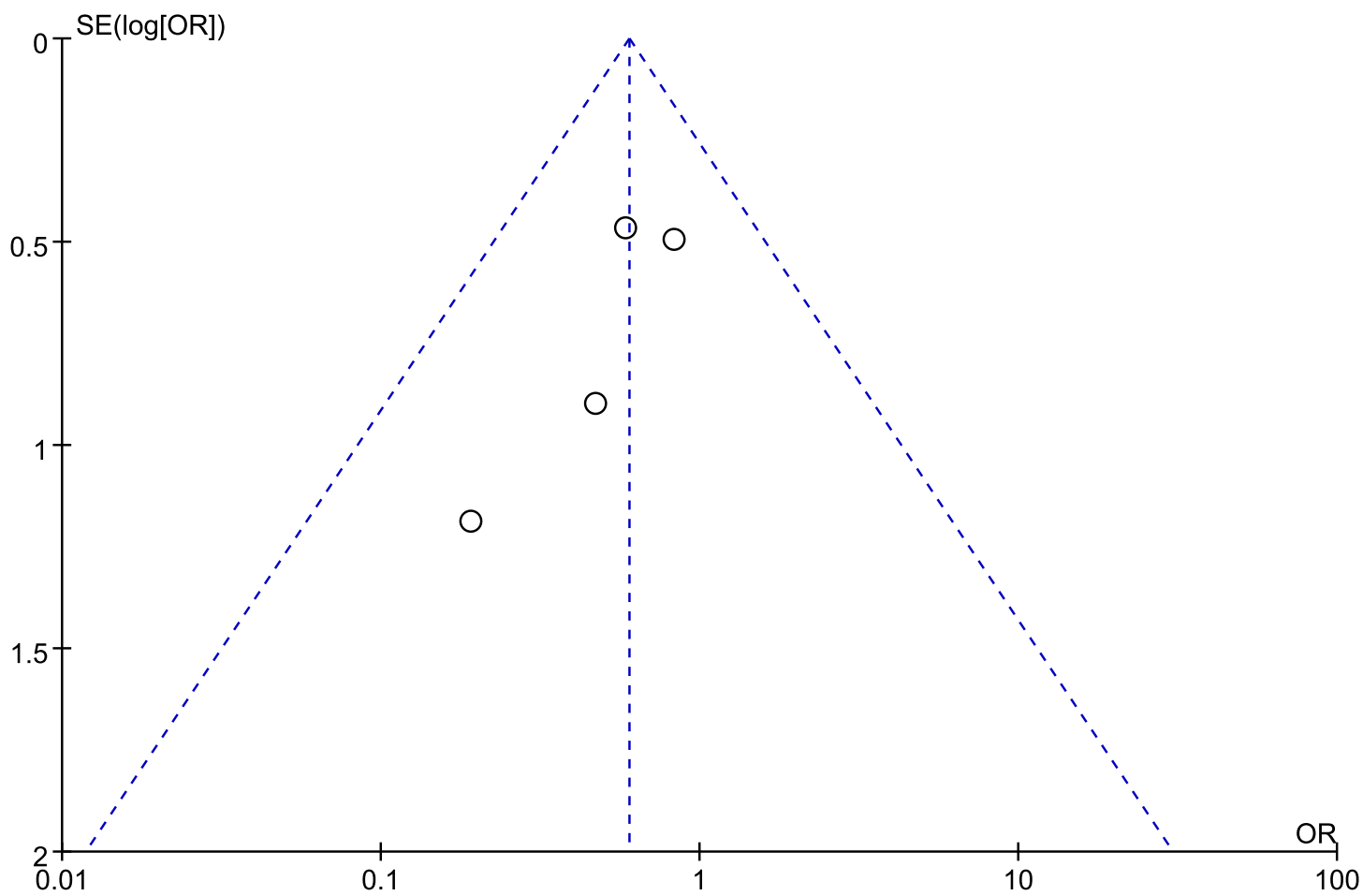
Supplementary Figure 38. Funnel plot of stillbirth.



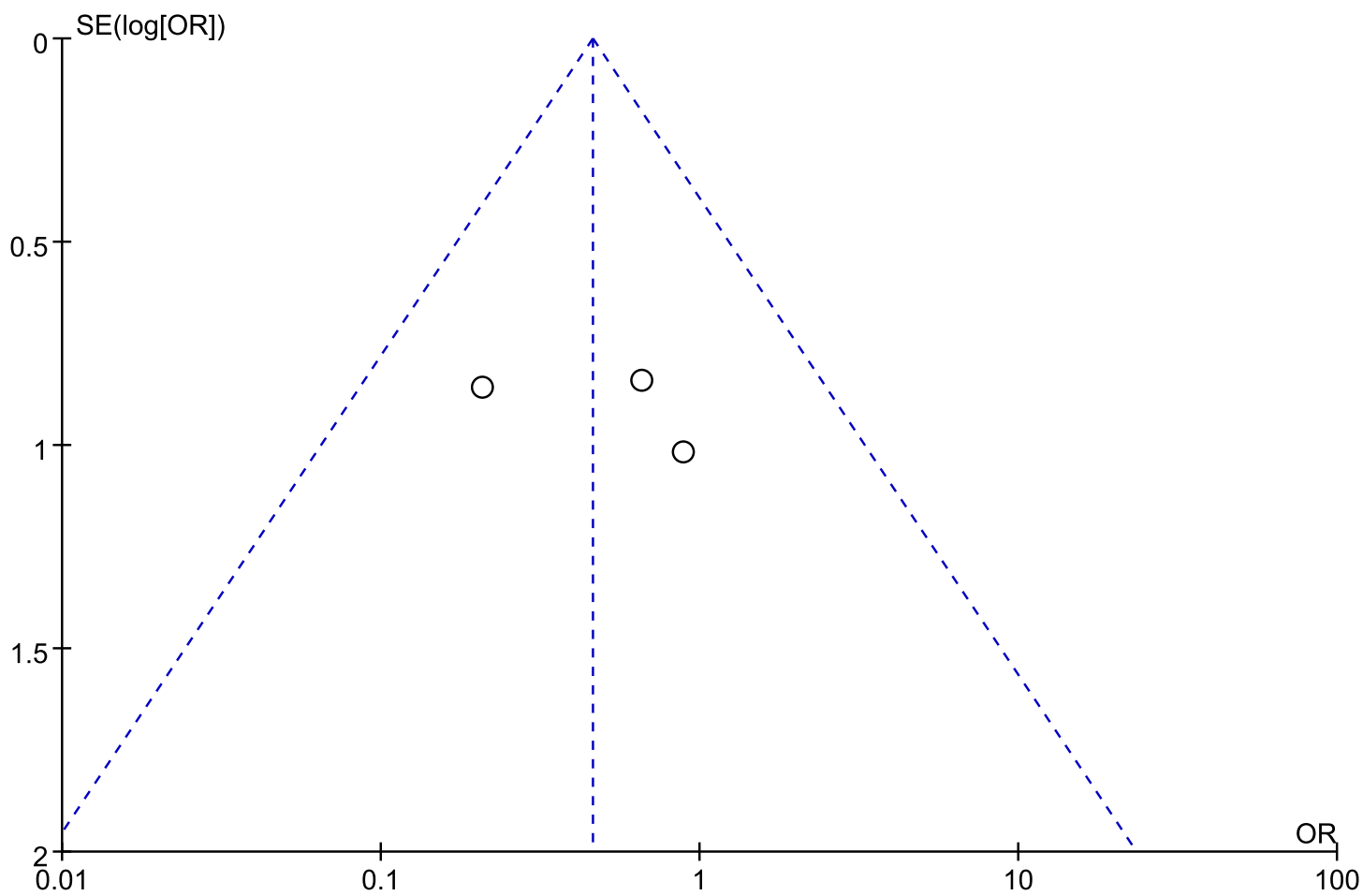
Supplementary Figure 39. Funnel plot of congenital malformation.



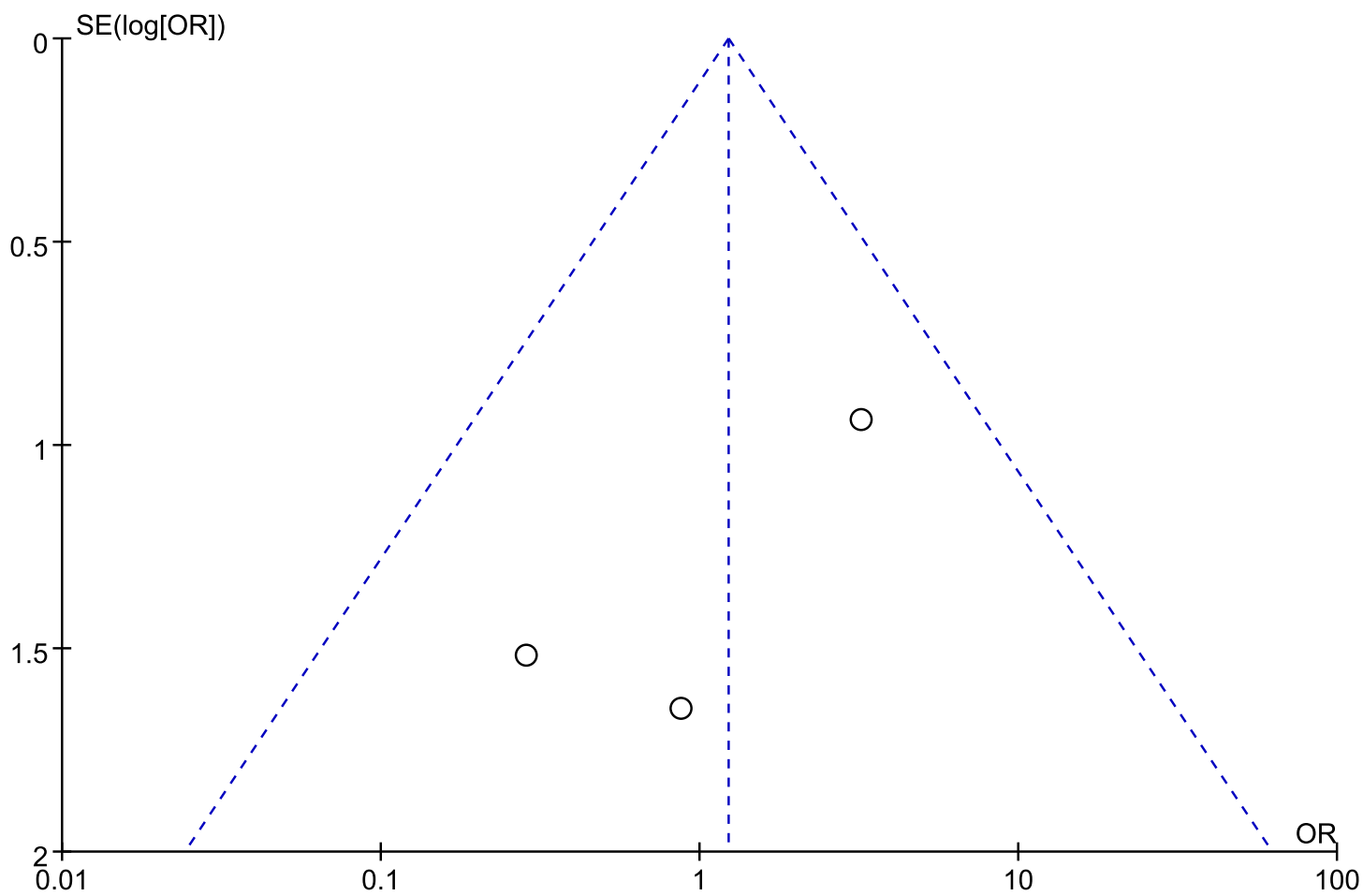
Supplementary Figure 40. Funnel plot of gestational age.



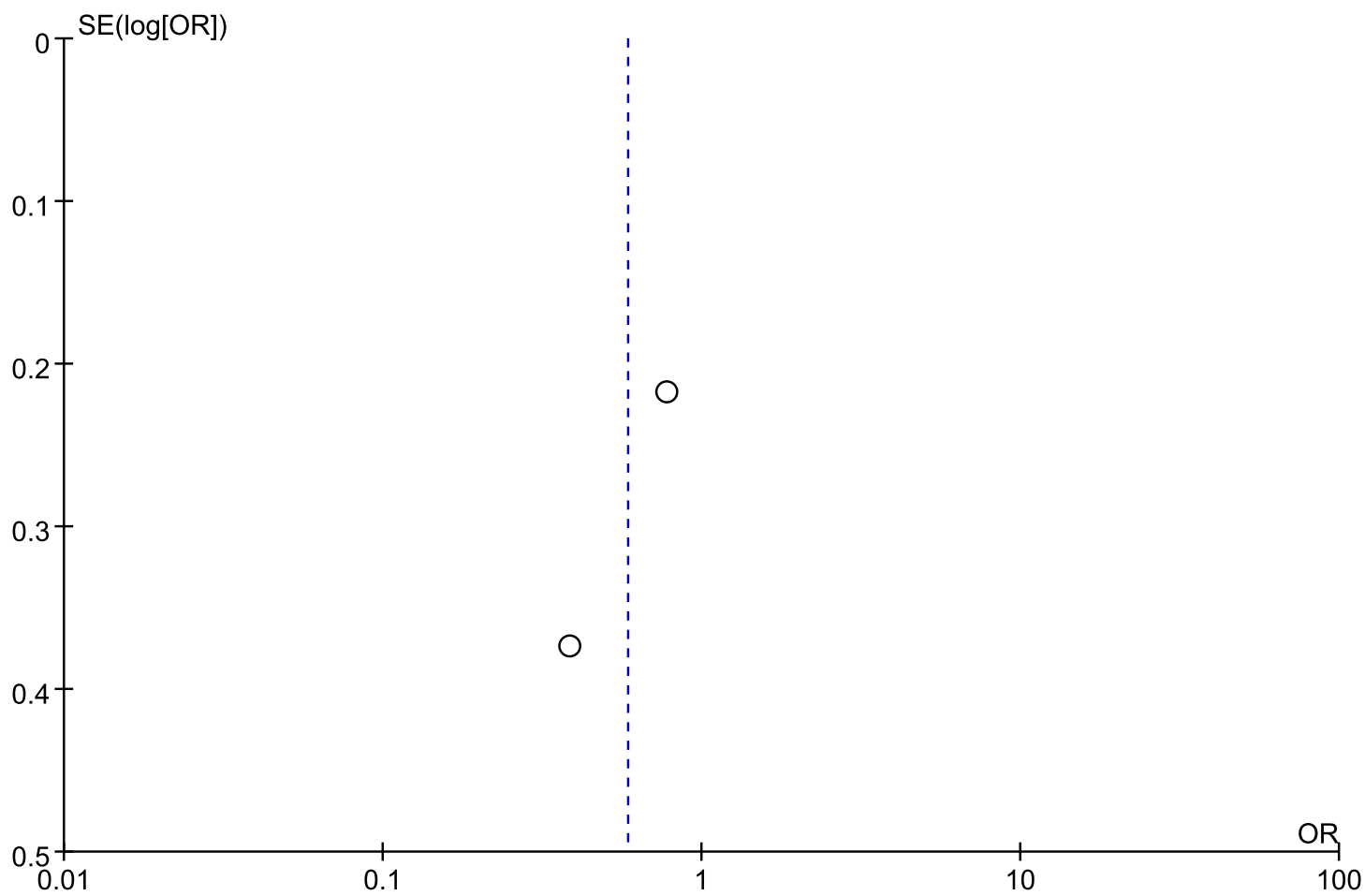
Supplementary Figure 41. Funnel plot of intrauterine distress.



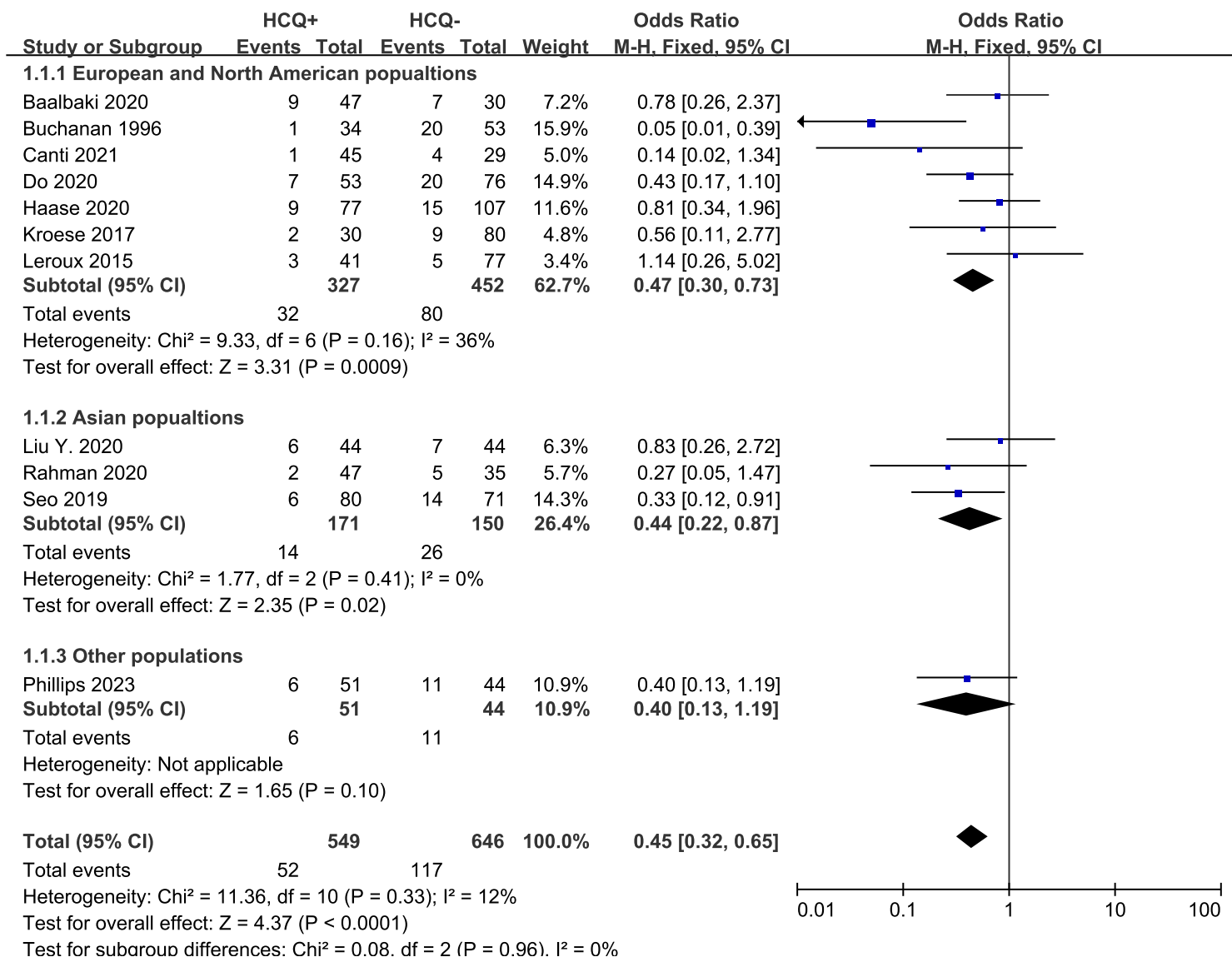
Supplementary Figure 42. Funnel plot of 5-minute APGAR score <7.



Supplementary Figure 43. Funnel plot of neonatal lupus.

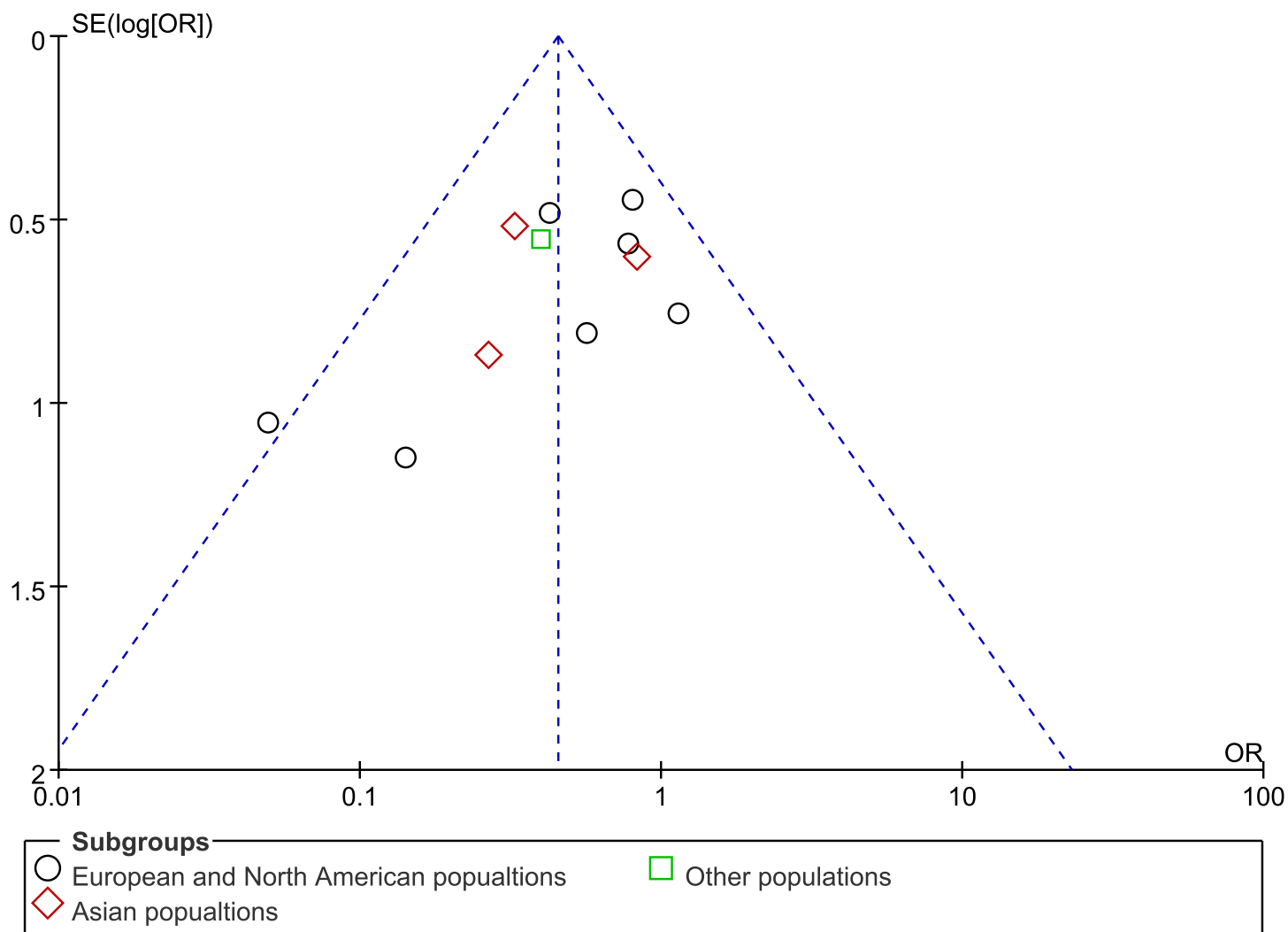


Supplementary Figure 44. Funnel plot of fetal APOs.

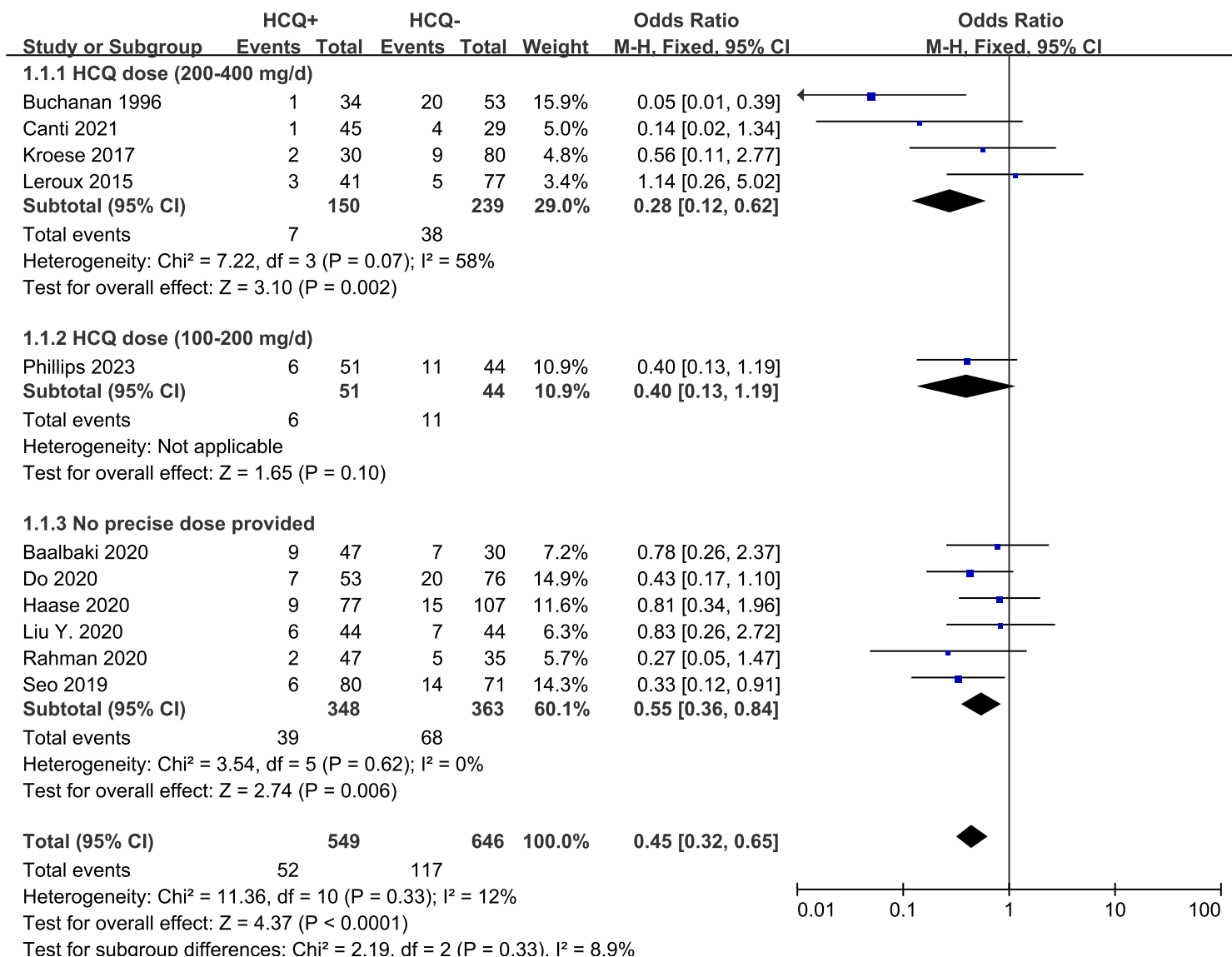


Supplementary Figure 45. Subgroup meta-analysis of preeclampsia in pregnant women with SLE from different populations (HCQ+ vs. HCQ-).

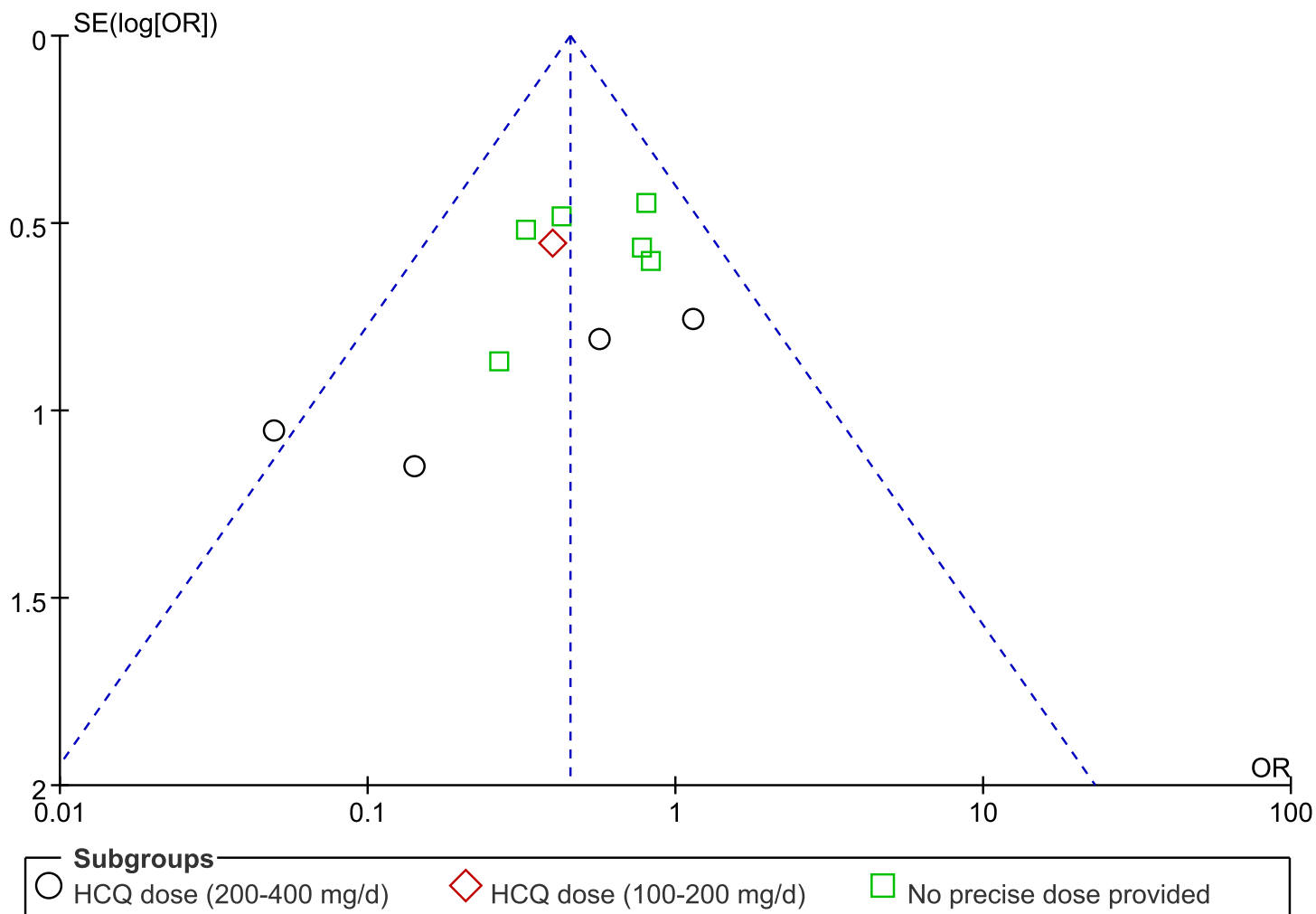




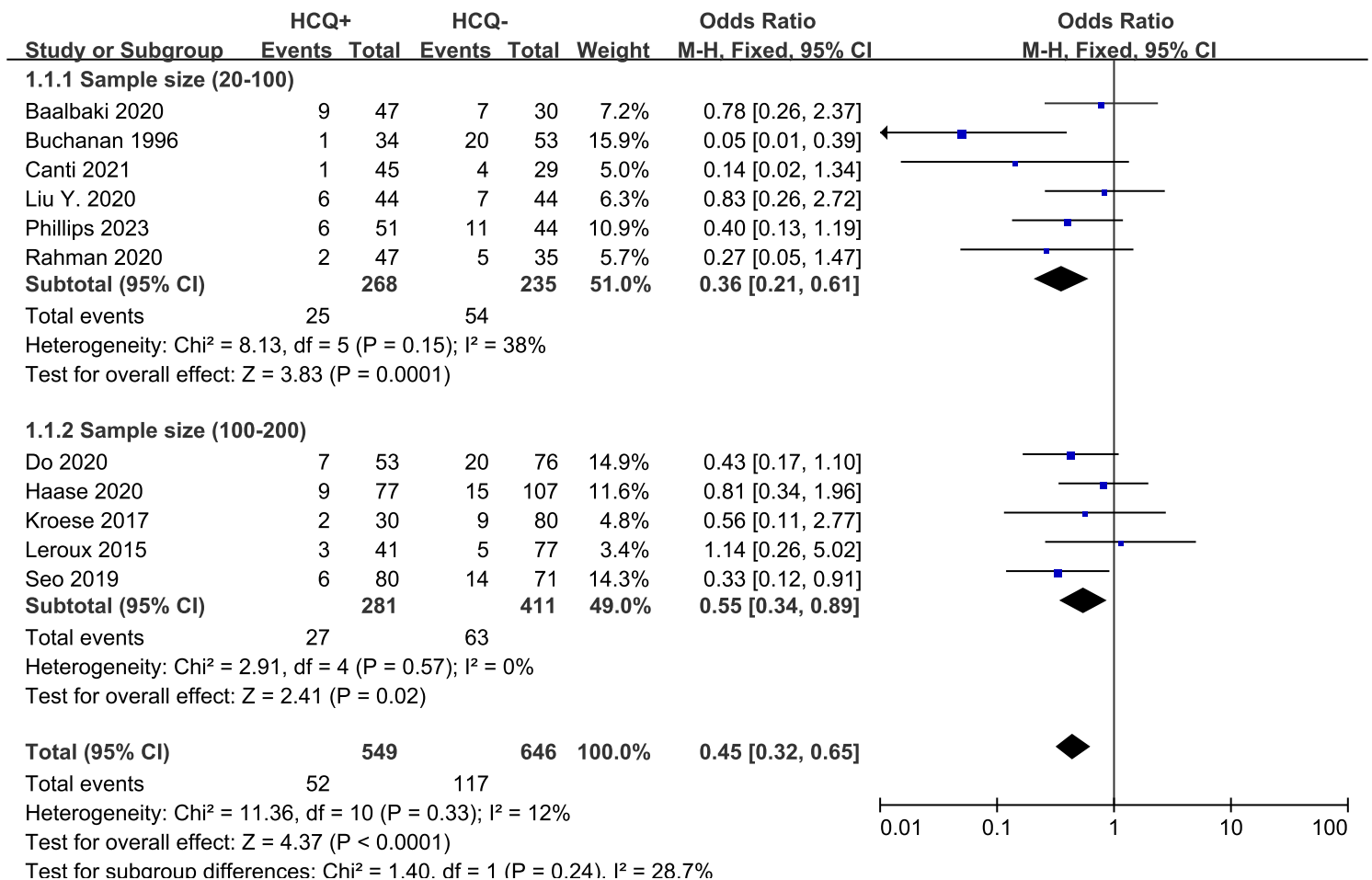
Supplementary Figure 46. Funnel plot of subgroup meta-analysis of preeclampsia in pregnant women with SLE from different populations (HCQ+ vs. HCQ-).



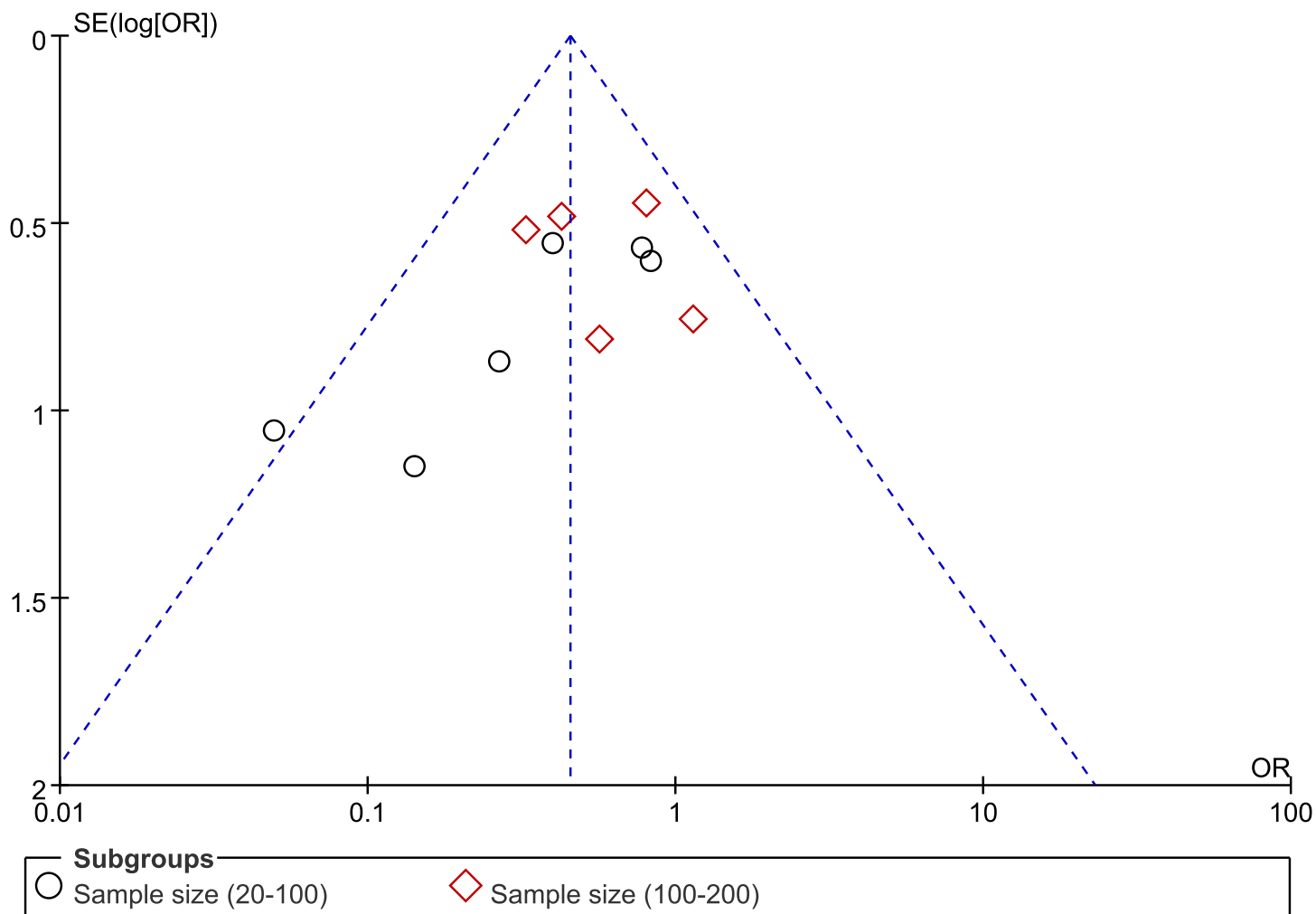
Supplementary Figure 47. Subgroup meta-analysis of preeclampsia in pregnant women with SLE receiving HCQ of different doses vs. controls.



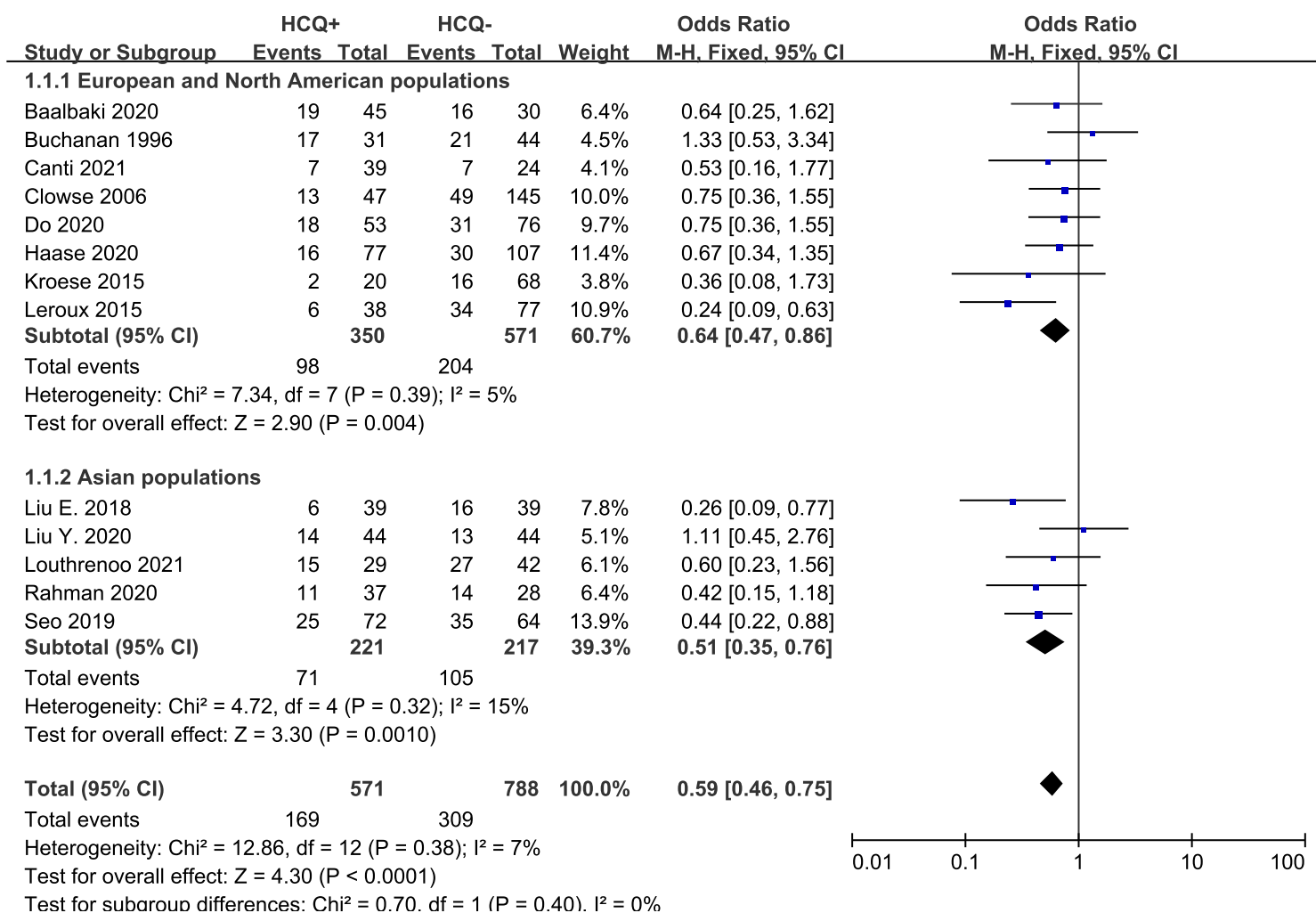
Supplementary Figure 48. Funnel plot of subgroup meta-analysis of preeclampsia in pregnant women with SLE receiving HCQ of different doses vs. controls.



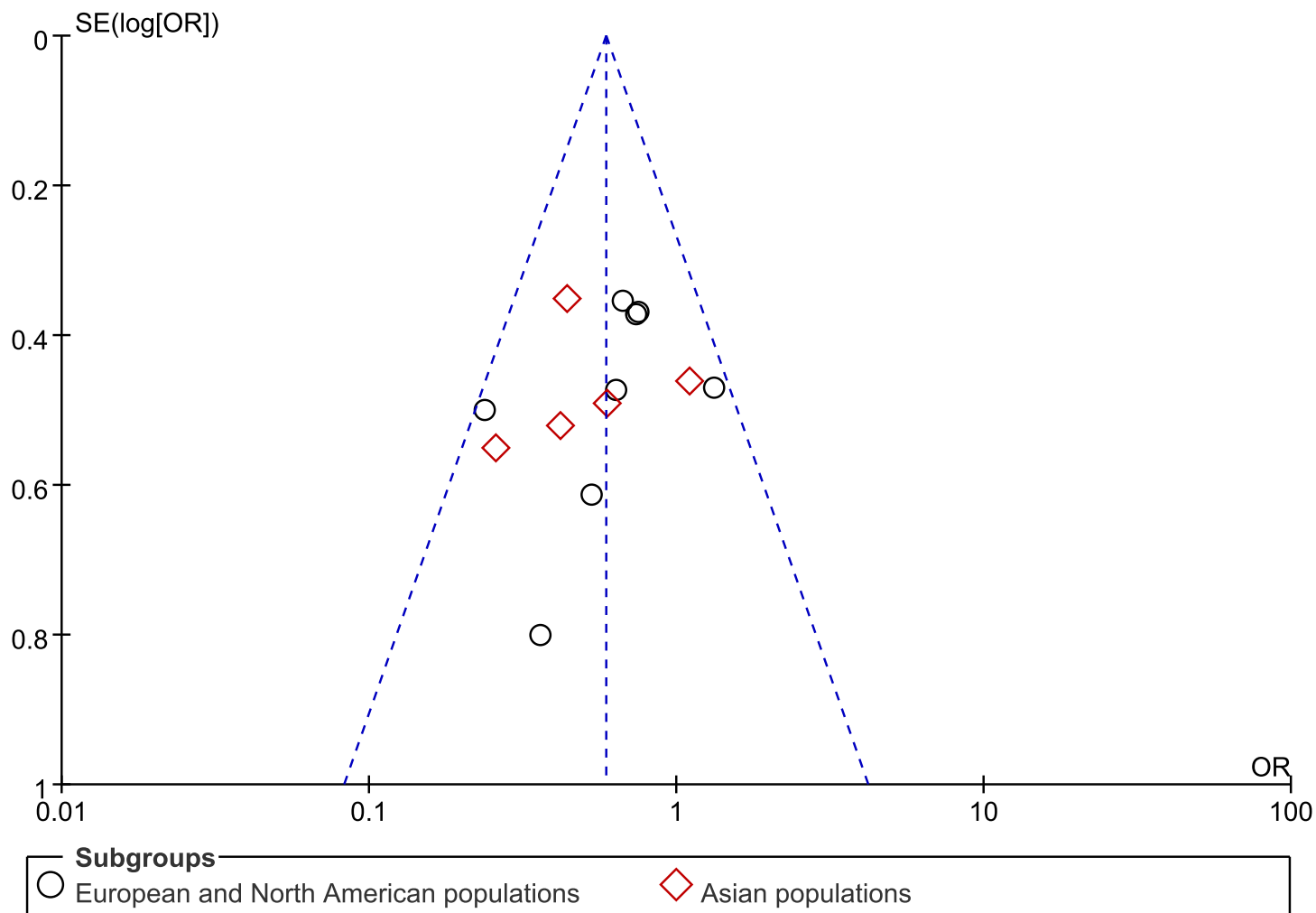
Supplementary Figure 49. Subgroup meta-analysis of preeclampsia in pregnant women with SLE of different sample sizes (HCQ+ vs. HCQ-).



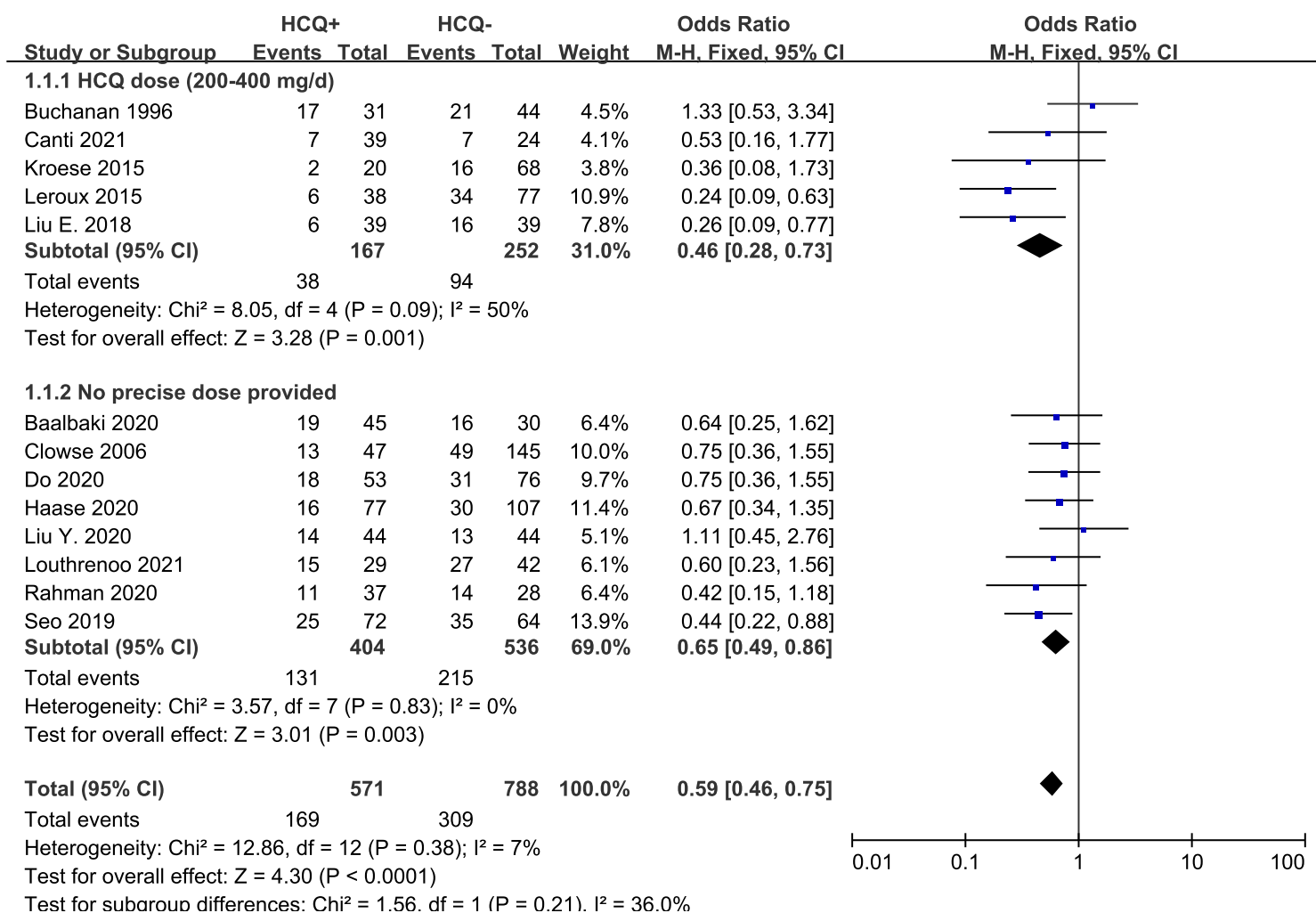
Supplementary Figure 50. Funnel plot of subgroup meta-analysis of preeclampsia in pregnant women with SLE of different sample sizes (HCQ+ vs. HCQ-).



Supplementary Figure 51. Subgroup meta-analysis of premature delivery in pregnant women with SLE from different populations (HCQ+ vs. HCQ-).

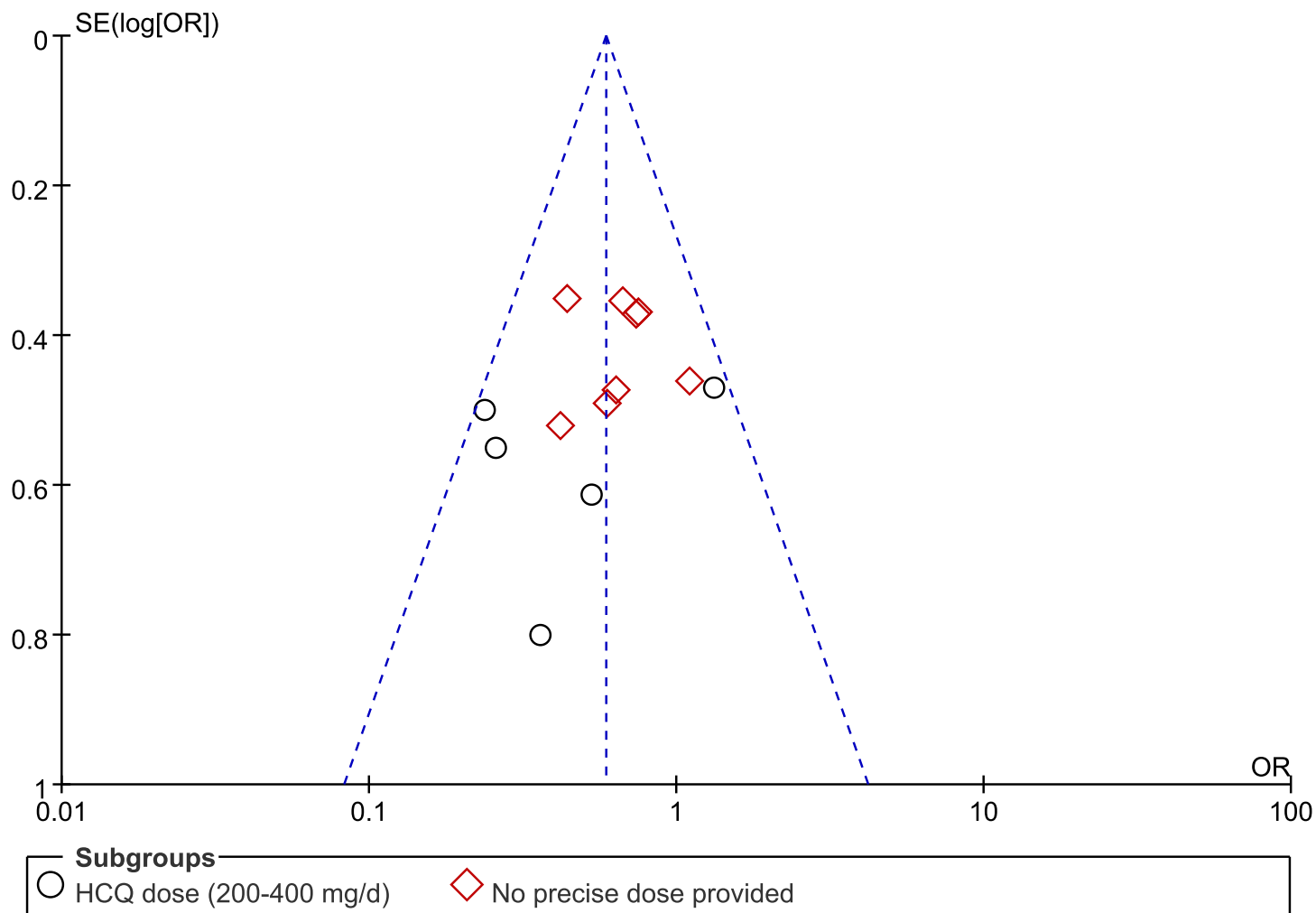


Supplementary Figure 52. Funnel plot of subgroup meta-analysis of premature delivery in pregnant women with SLE from different populations (HCQ+ vs. HCQ-).

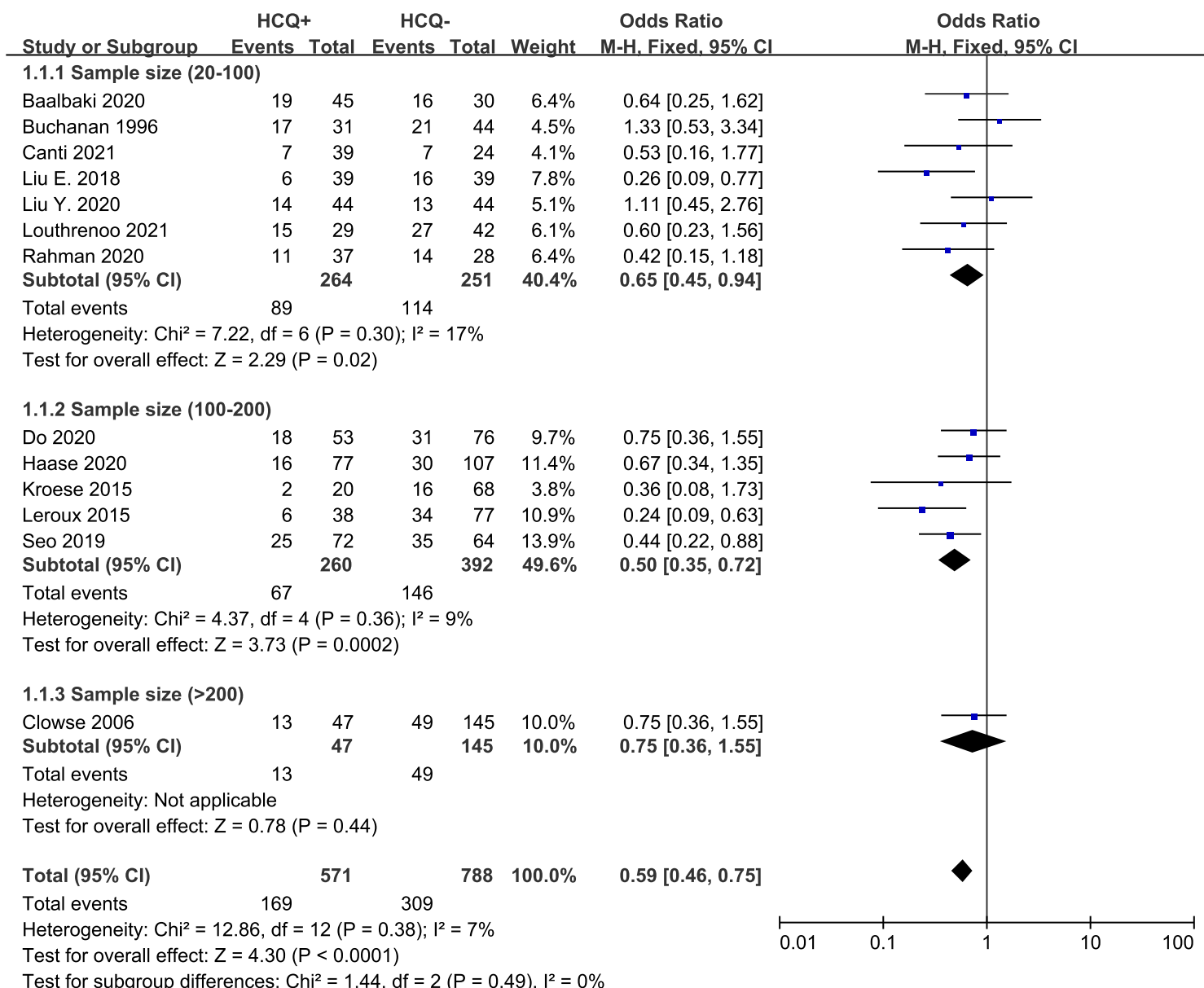


Supplementary Figure 53. Subgroup meta-analysis of premature delivery in pregnant women with SLE receiving HCQ of different doses vs. controls.

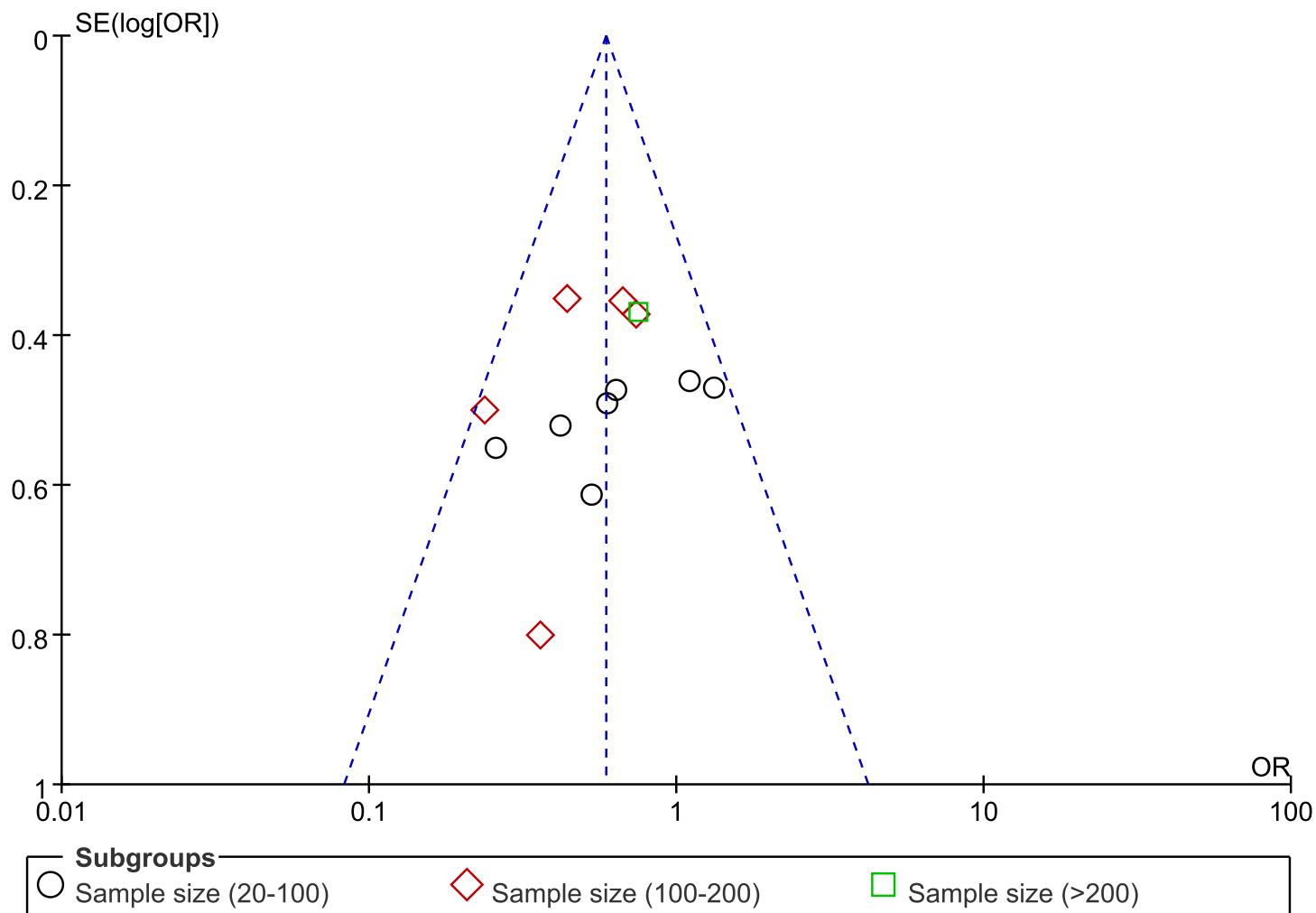




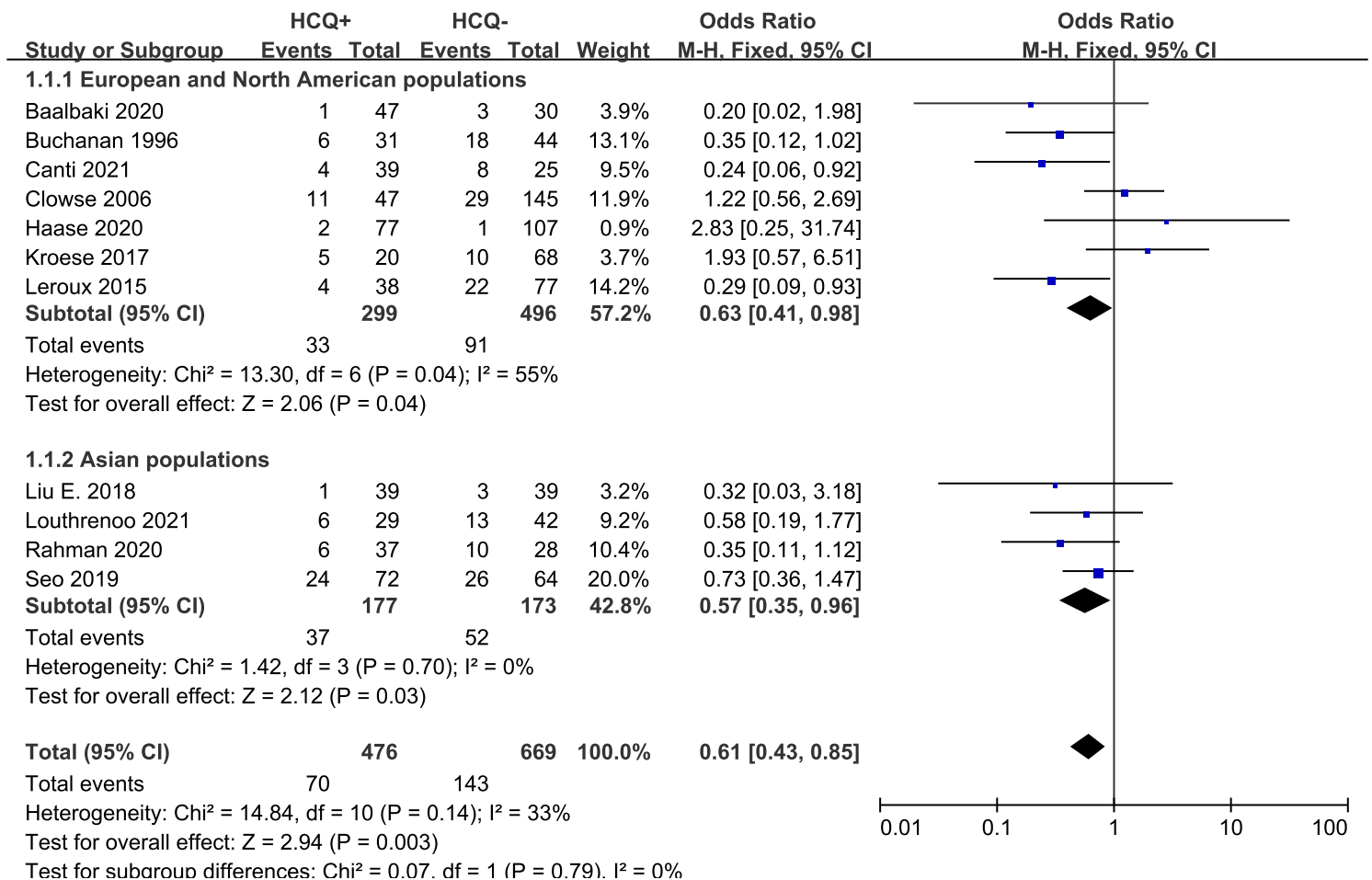
Supplementary Figure 54. Funnel plot of subgroup meta-analysis of premature delivery in pregnant women with SLE receiving HCQ of different doses vs. controls.



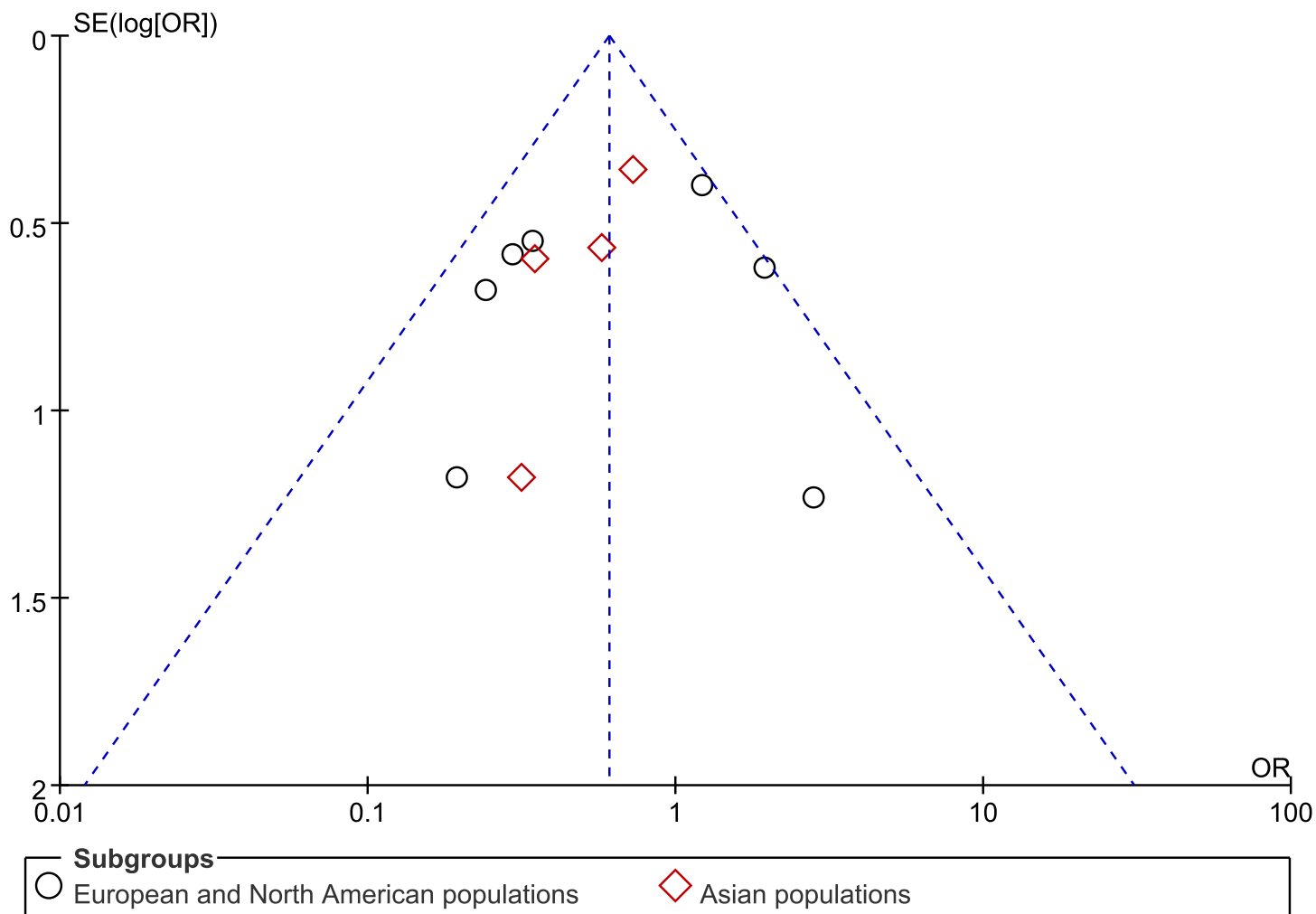
Supplementary Figure 55. Subgroup meta-analysis of premature delivery in pregnant women with SLE of different sample sizes (HCQ+ vs. HCQ-).



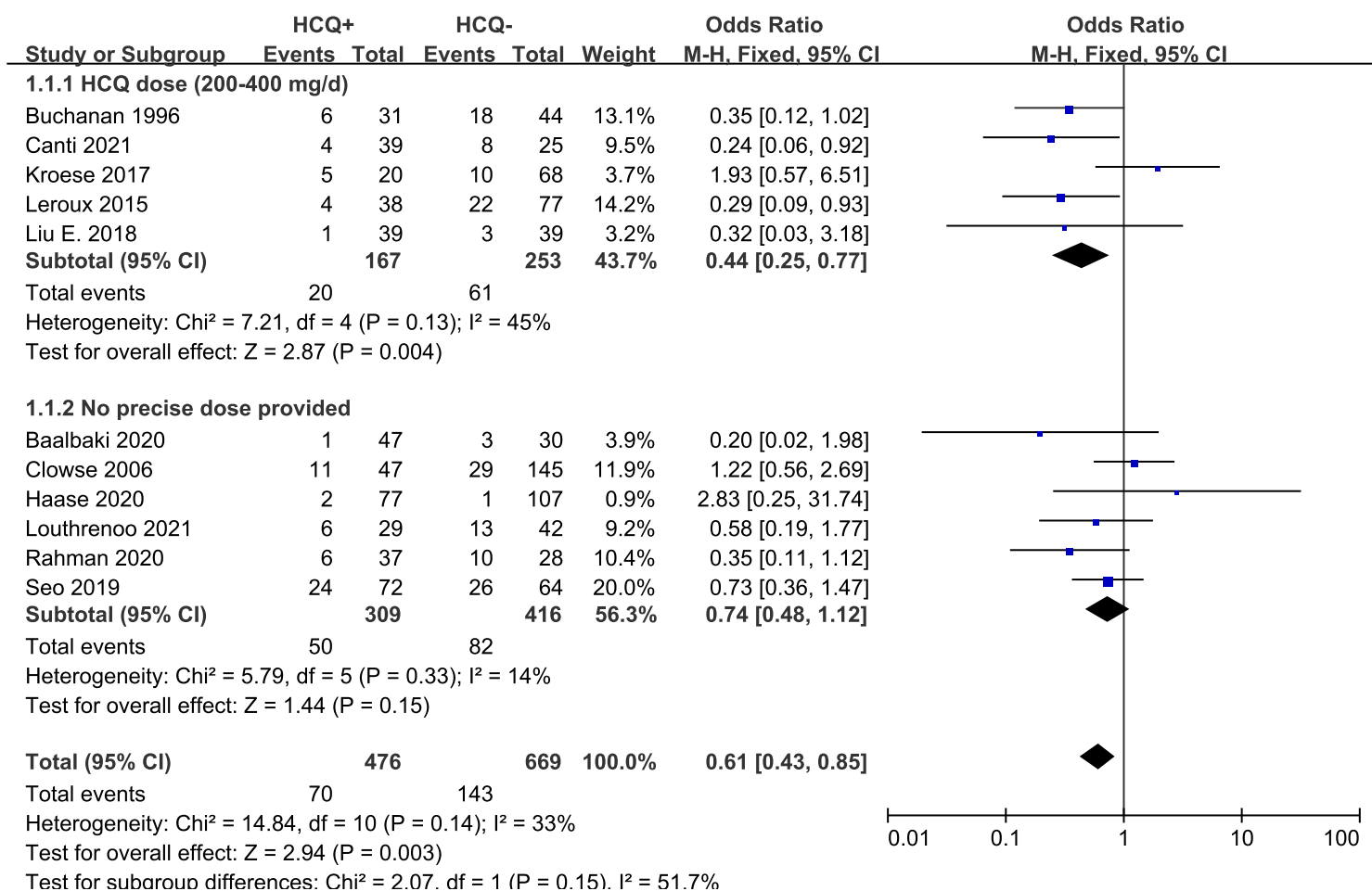
Supplementary Figure 56. Funnel plot of subgroup meta-analysis of premature delivery in pregnant women with SLE of different sample sizes (HCQ+ vs. HCQ-).



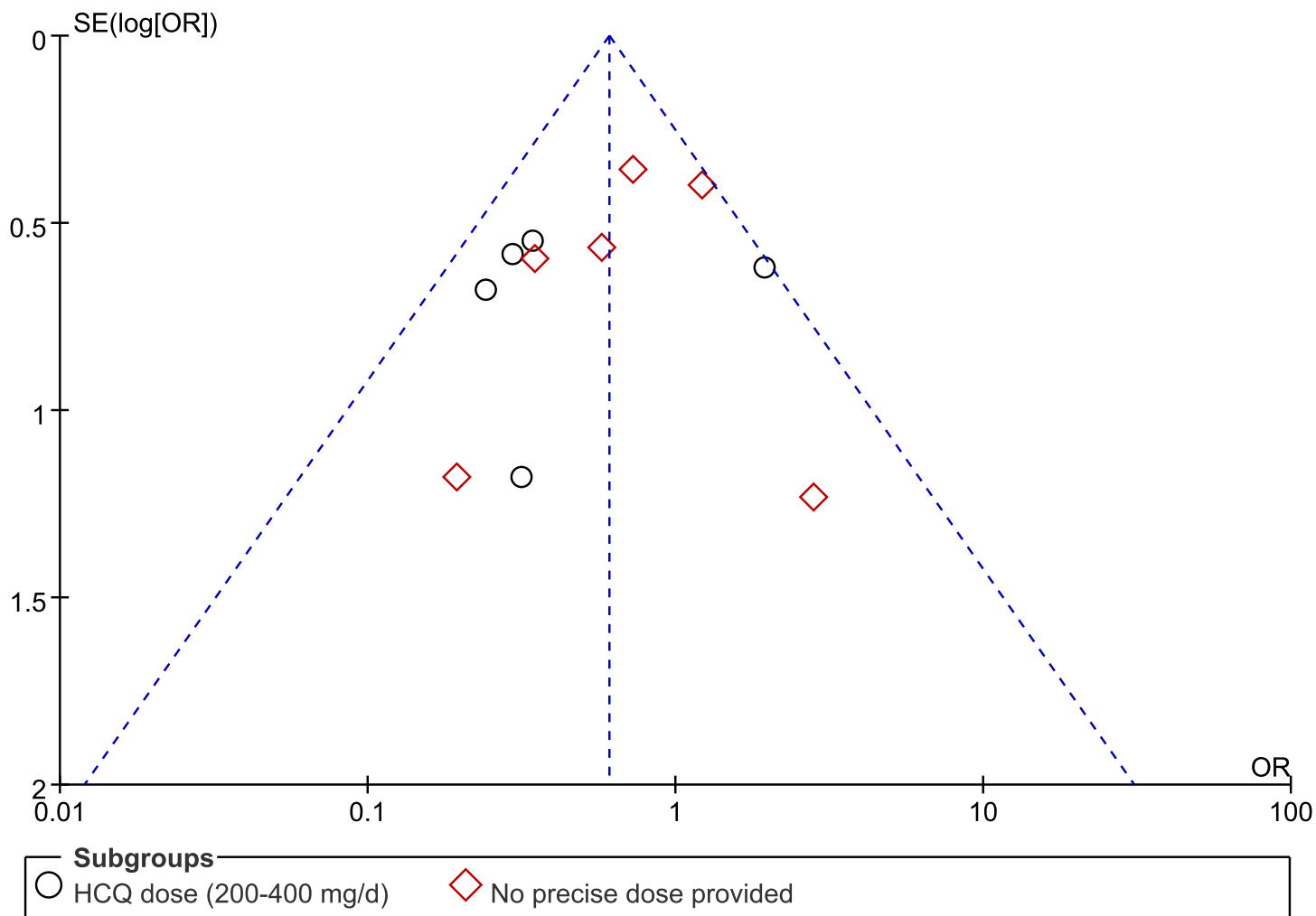
Supplementary Figure 57. Subgroup meta-analysis of fetal growth restriction in pregnant women with SLE from different populations (HCQ+ vs. HCQ-).



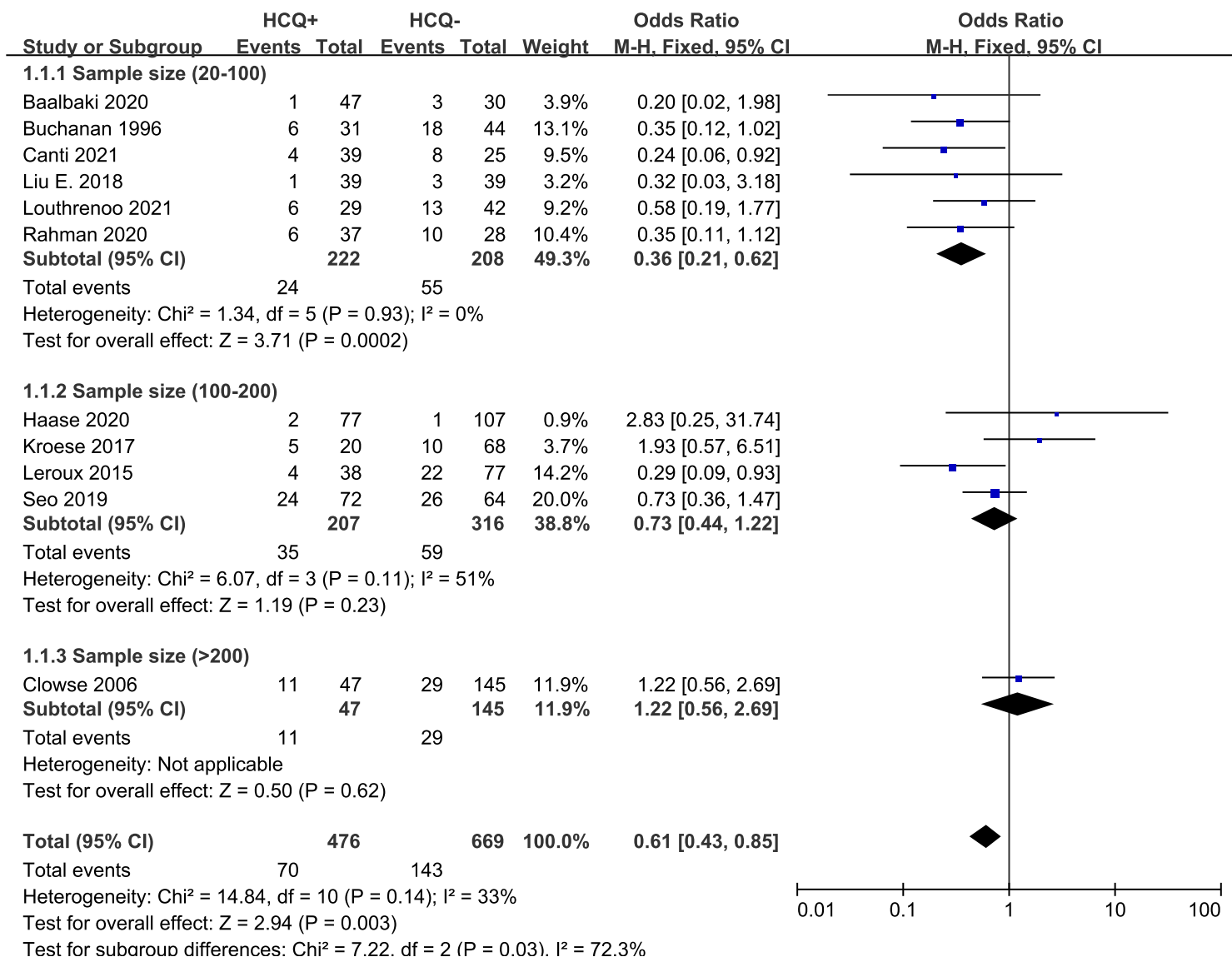
Supplementary Figure 58. Funnel plot of subgroup meta-analysis of fetal growth restriction in pregnant women with SLE from different populations (HCQ+ vs. HCQ-).



Supplementary Figure 59. Subgroup meta-analysis of fetal growth restriction in pregnant women with SLE receiving HCQ of different doses vs. controls.

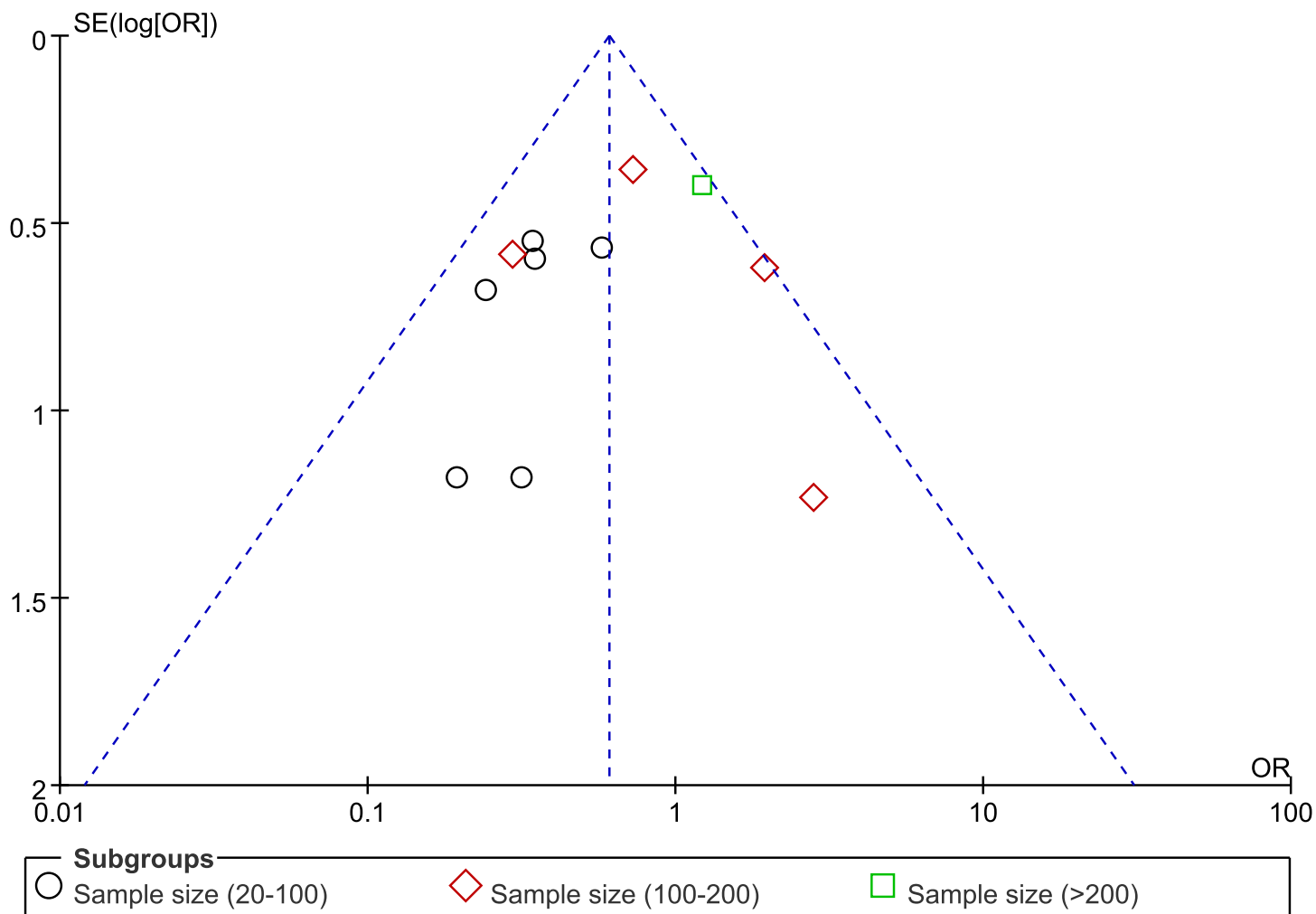


Supplementary Figure 60. Funnel plot of subgroup meta-analysis of fetal growth restriction in pregnant women with SLE receiving HCQ of different doses vs. controls.



Supplementary Figure 61. Subgroup meta-analysis of fetal growth restriction in pregnant women with SLE of different sample sizes (HCQ+ vs. HCQ-).





Supplementary Figure 62. Funnel plot of subgroup meta-analysis of fetal growth restriction in pregnant women with SLE of different sample sizes (HCQ+ vs. HCQ-).