
Drug safety

The use of multiple medications during pregnancy among ethnically diverse population in south-eastern Melbourne: a retrospective analysis to explore potential risks and complications

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Supplementary file

Pages 1 to 9 - Main analysis reported in the manuscript is Model 2 below. Sensitivity analysis of risk factors of multiple drug use and pregnancy complications based on different morbidity categories (Models 1 and 3).

Page 10 - Figure S9: Top 5 morbidities in pregnant women as recorded in antenatal health records.

Multiple drug use risk factors

Figure 1: Model 1 is based on morbidity categories with two groups: 0 vs. ≥ 1 disease. Figure 2: Model 2 is based on morbidity categories with two groups: 0 vs. ≥ 2 diseases (multimorbidity). Figure 3: Model 3 is based on morbidity categories with four groups: 0, 1, 2, 3, ≥ 4 diseases. The remaining variables are consistent across all three models.

Summary of finding from three models: from these figures, it is evident that the direction of the association between each risk factor and multidrug use remains unchanged, even though there are minor changes in the strength of association.

Figure S1. Model 1: Based on morbidity category having two categories 0 vs ≥ 1 disease

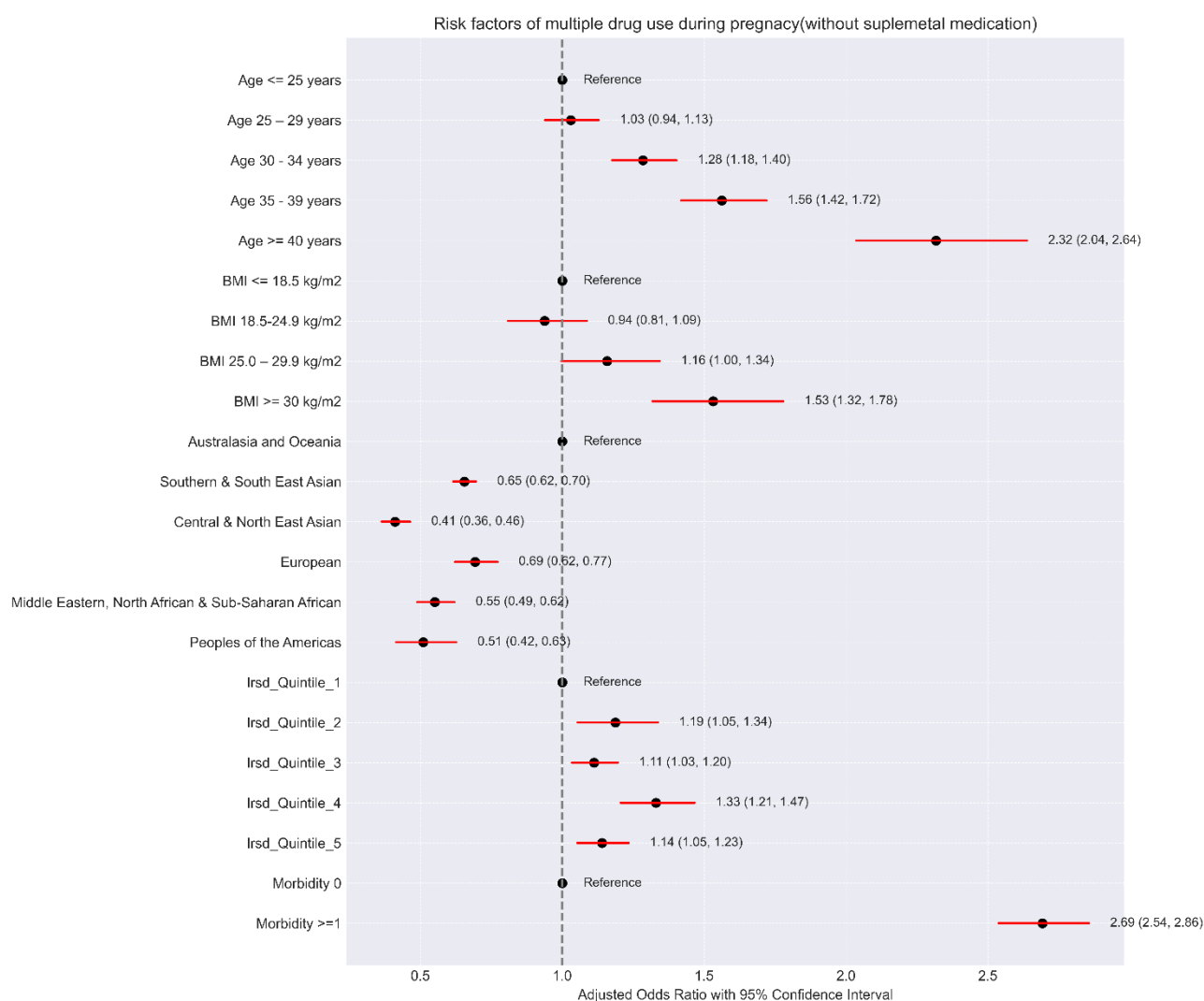


Figure S2. Model 2: Based on morbidity category having two categories 0 vs ≥ 2 disease(multimorbidity)

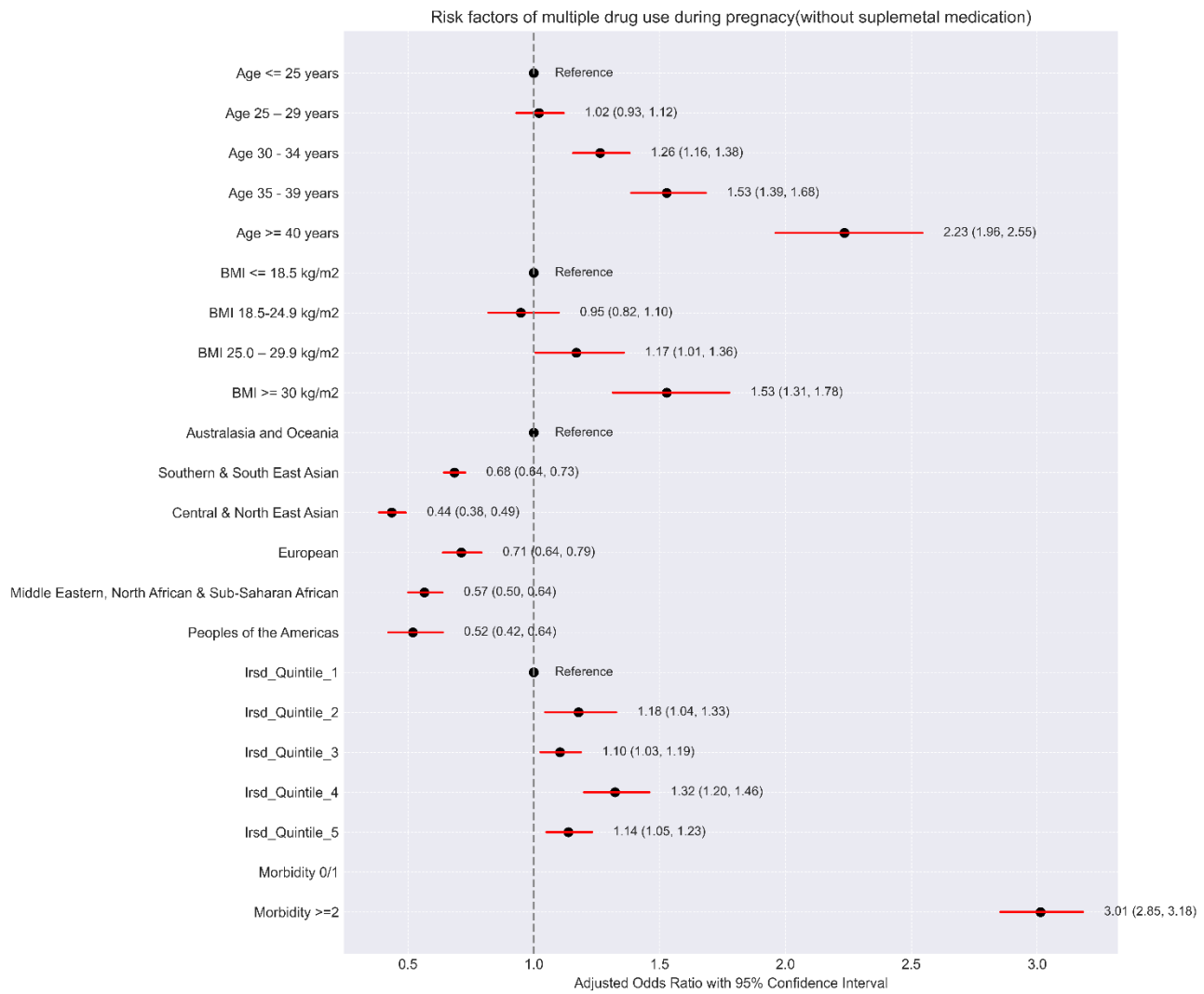
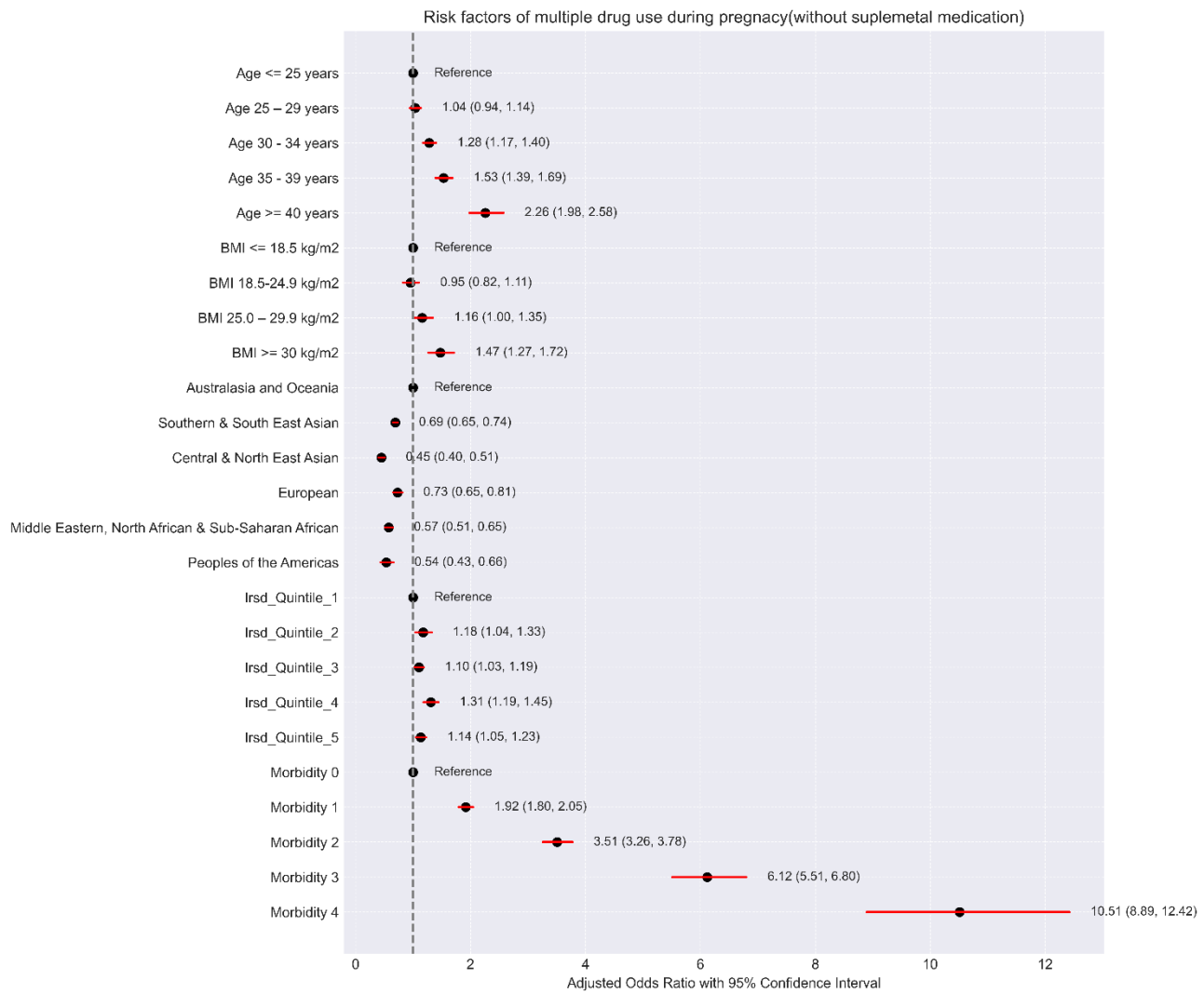


Figure S3. Model 3: Based on morbidity category having four categories 0, 1, 2, 3, >= 4 morbidities



Association of multiple drug use and pregnancy complications

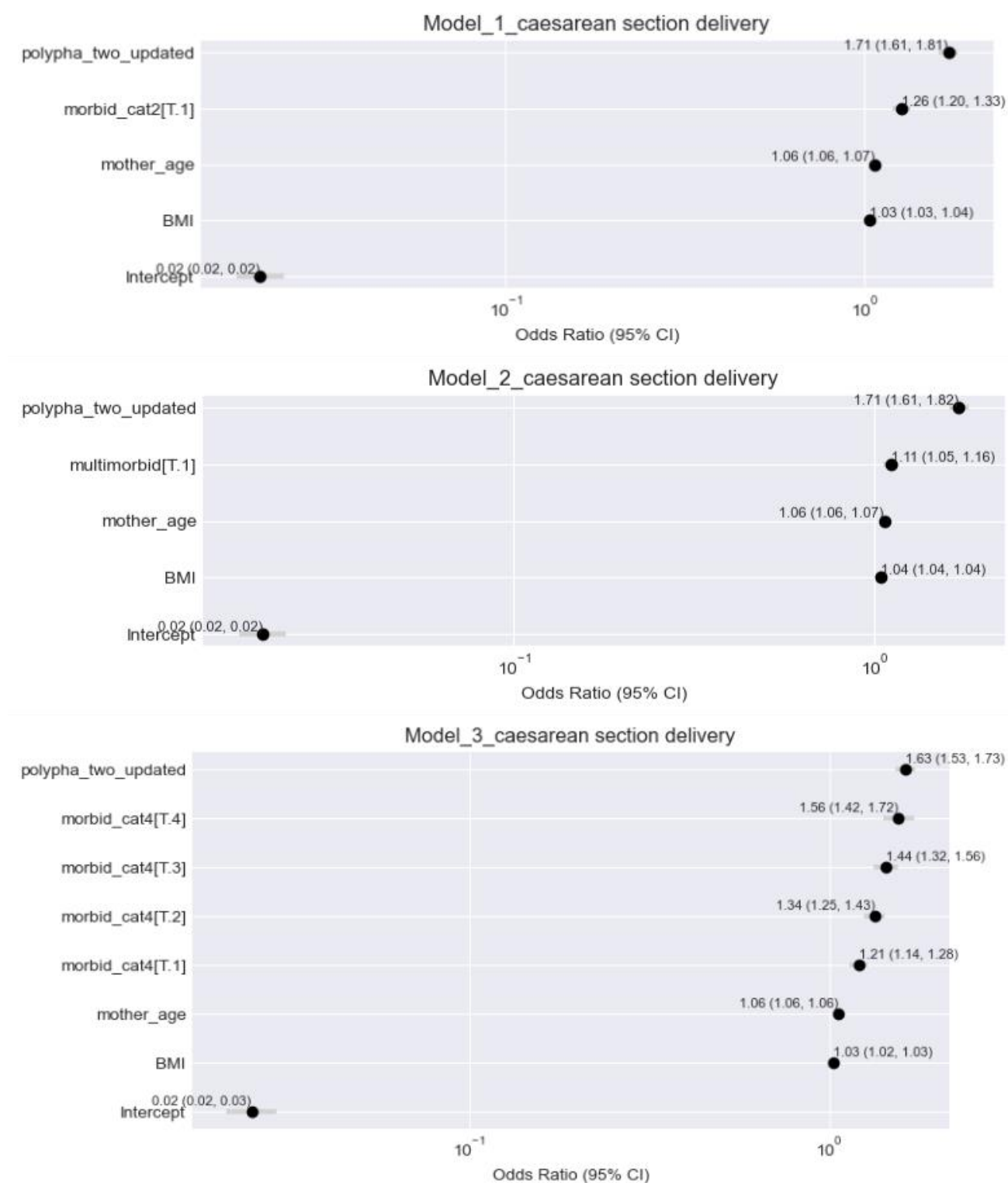
Summary of finding from three models: In summary, by applying different morbidity categories across three models, the effect of the 'Multiple drug use' variable remains consistent for all complications and across all three models.

Table S1: Association of Multiple Drug use and Pregnancy Complications

Pregnancy complications	Model	Multiple drug use (AOR 95%CI)	Morbidity Variable (AOR 95%CI)
Caesarean section	1	1.71 (1.61, 1.81)	1.09 (1.05, 1.14)
	2	1.71 (1.61, 1.82)	1.11 (1.05, 1.16)
	3	1.68 (1.58,1.79)	1.06 (1.02,1.11); 1.12 (1.06,1.19);1.17 (1.06,1.30); 1.27 (1.07,1.51)
Preterm birth	1	6.70 (6.22, 7.22)	0.89 (0.83, 0.96)
	2	6.68 (6.20,7.20)	0.91 (0.84,0.99)
	3	6.74 (6.25,7.28)	0.91 (0.84,0.98); 0.87 (0.79,0.97); 0.86 (0.74,1.01); 0.87 (0.74,1.01)
Fetal death	1	1.62 (1.27, 2.02)	0.90 (0.76, 1.07)
	2	1.58 (1.27,1.96)	1.00 (0.82, 1.22)
	3	1.76 (1.41,2.20)	0.88 (0.73,1.07); 0.92 (0.72,1.18); 0.97 (0.65,1.45); 1.07 (0.57,2.00)
SCNNICU admission	1	3.28 (3.09, 3.49)	1.09 (1.03, 1.14)
	2	3.31 (3.11,3.52)	1.05 (0.99, 1.11)
	3	3.25 (3.06,3.47)	1.08 (1.02,1.14); 1.07 (1.00,1.15); 1.17 (1.04,1.31); 1.23 (1.02,1.48)

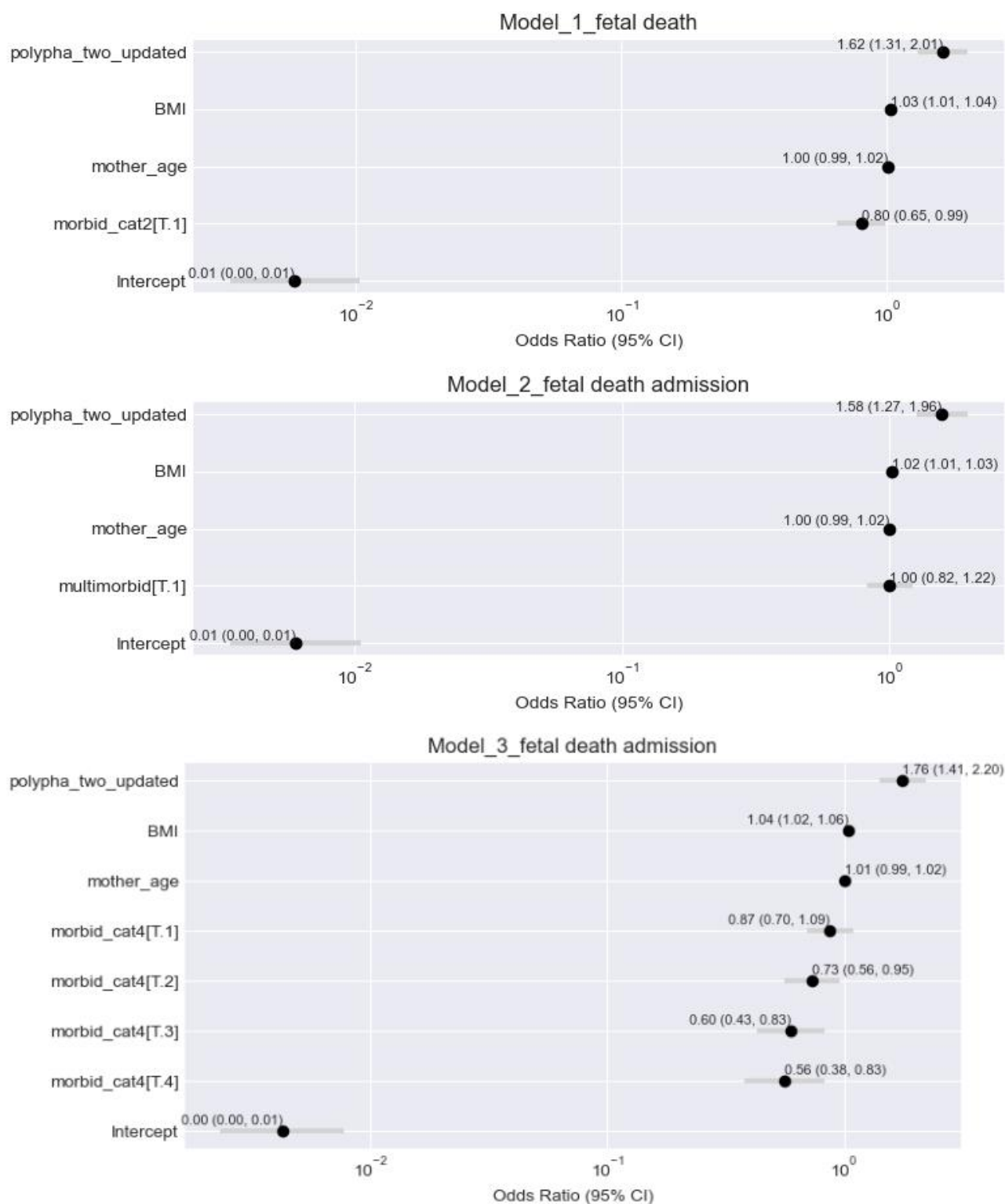
Footnote and abbreviations: model 1: included variables: morbidity of 0 vs ≥ 1 , age, and body mass index; model 2: included variables: morbidity of 0/1 vs ≥ 2 , age, and body mass index; model 3: included variables: morbidity of (0, 1, 2,3, ≥ 4), age, and body mass index; SCNNICU: special care nursery and neonatal intensive care unit

Figure S4. Association of multiple drug use and caesarean section across three models



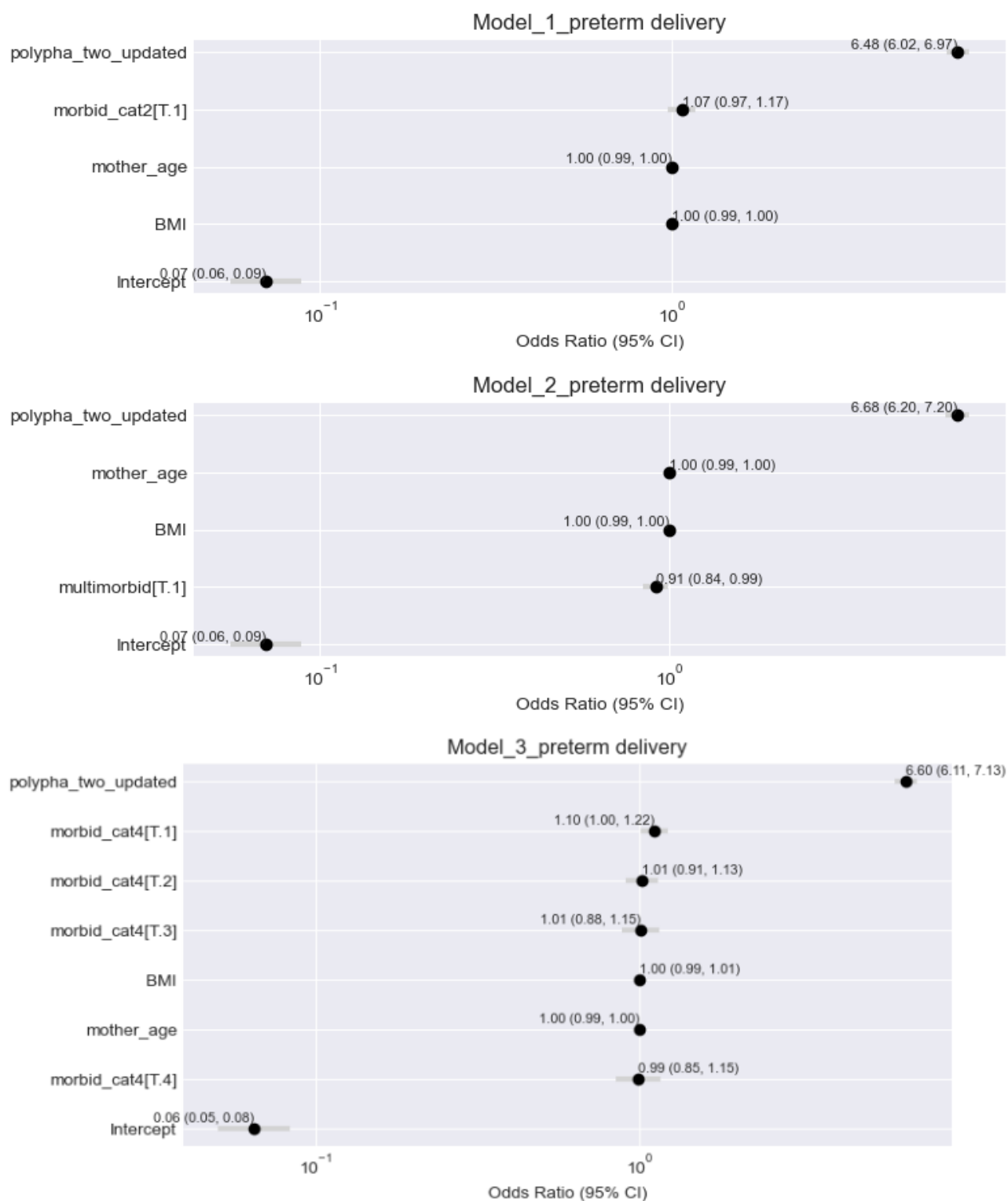
Footnote and abbreviations: model 1: included variables: morbidity of 0 vs ≥ 1 , age, and body mass index; model 2: included variables: morbidity of 0/1 vs ≥ 2 , age, and body mass index; model 3: included variables: morbidity of (0, 1, 2,3, ≥ 4), age, and body mass index;

Figure S6. Association of multiple drug use and fetal death across three models



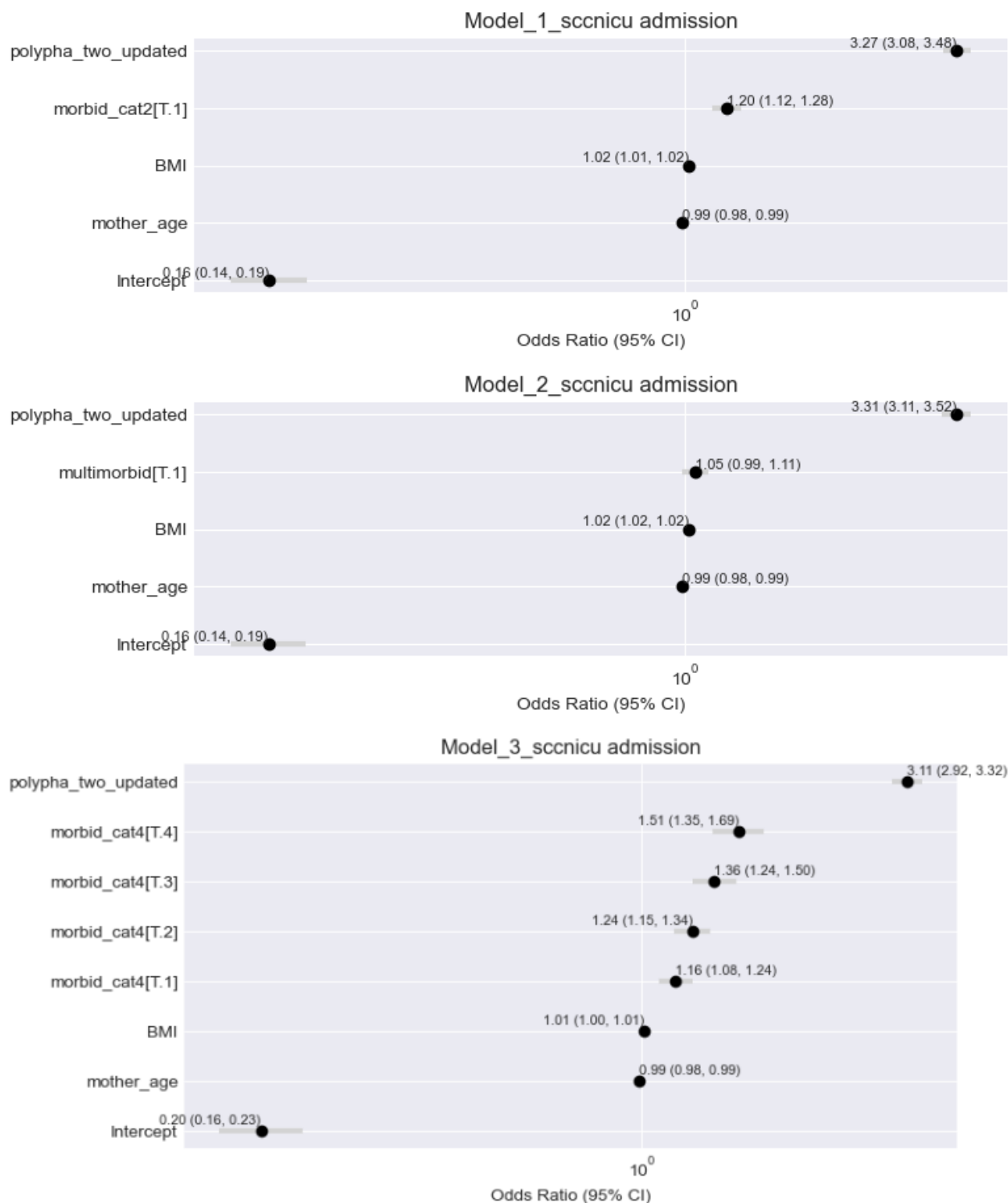
Footnote and abbreviations: model 1: included variables: morbidity of 0 vs ≥ 1 , age, and body mass index; model 2: included variables: morbidity of 0/1 vs ≥ 2 , age, and body mass index; model 3: included variables: morbidity of (0, 1, 2,3, ≥ 4), age, and body mass index;

Figure S7. Association of multiple drug use and preterm delivery across three models



Footnote and abbreviations: model 1: included variables: morbidity of 0 vs ≥ 1 , age, and body mass index; model 2: included variables: morbidity of 0/1 vs ≥ 2 , age, and body mass index; model 3: included variables: morbidity of (0, 1, 2,3, ≥ 4), age, and body mass index;

Figure S8. Association of multiple drug use and special care nursery and neonatal intensive care unit admission across three models



Footnote and abbreviations: model 1: included variables: morbidity of 0 vs ≥ 1 , age, and body mass index; model 2: included variables: morbidity of 0/1 vs ≥ 2 , age, and body mass index; model 3: included variables: morbidity of (0, 1, 2,3, ≥ 4), age, and body mass index; SCCNICU: special care nursery and neonatal intensive care unit

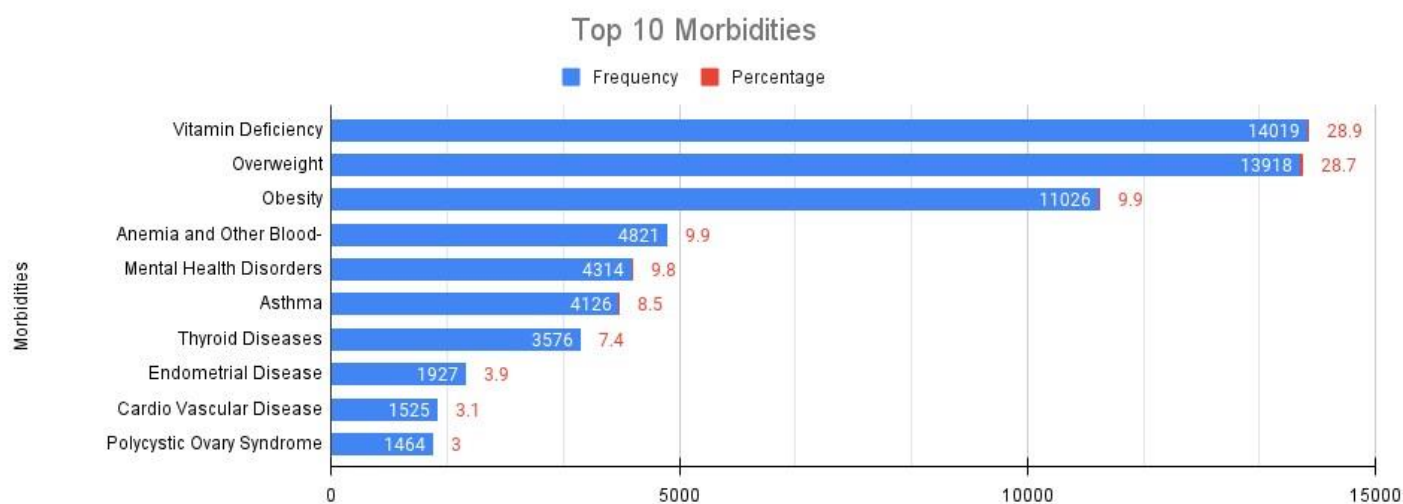


Figure S9: Top 10 morbidities in pregnant women as recorded in antenatal health records.

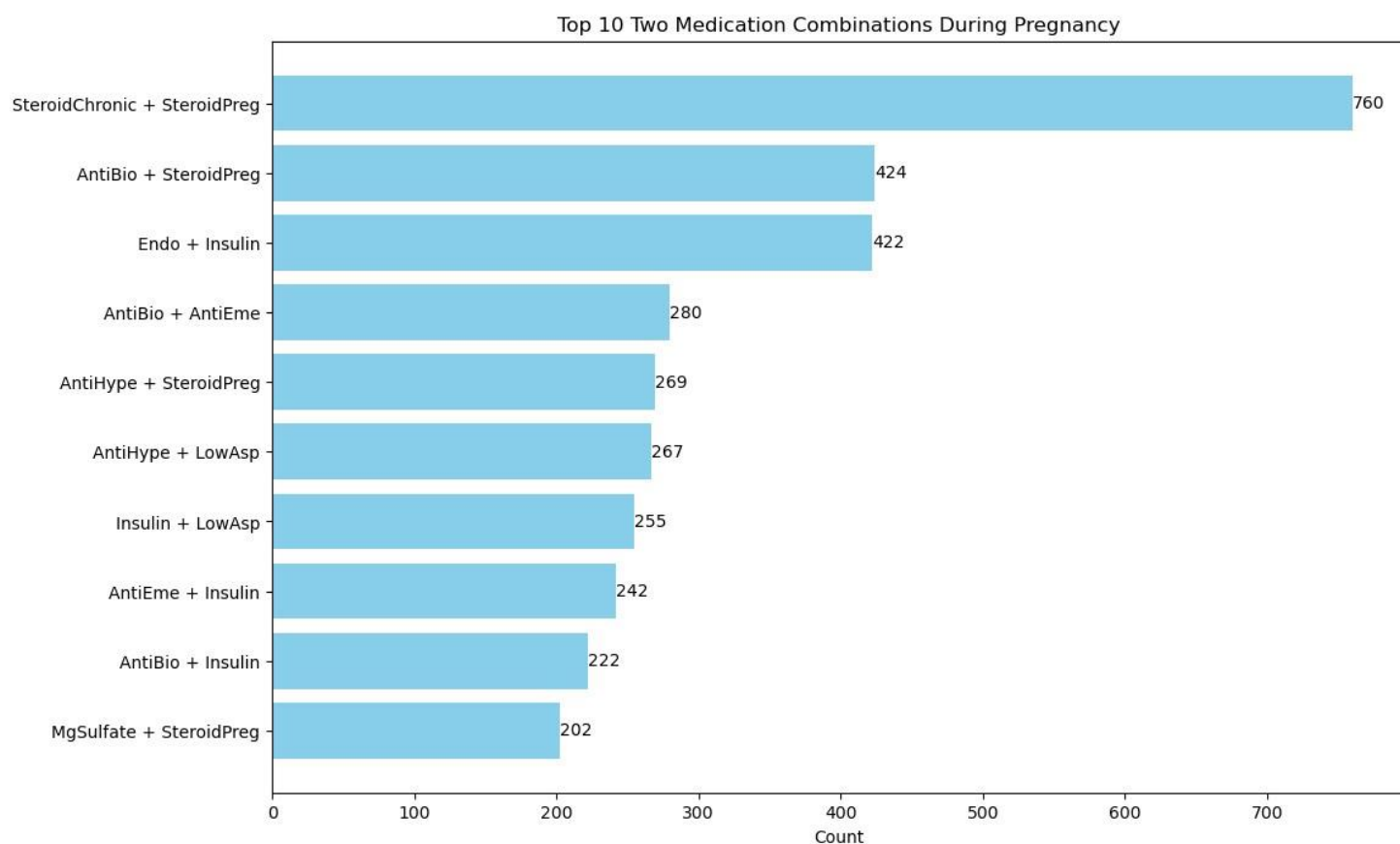


Figure S10: Top 10 two medication combinations used during pregnancy

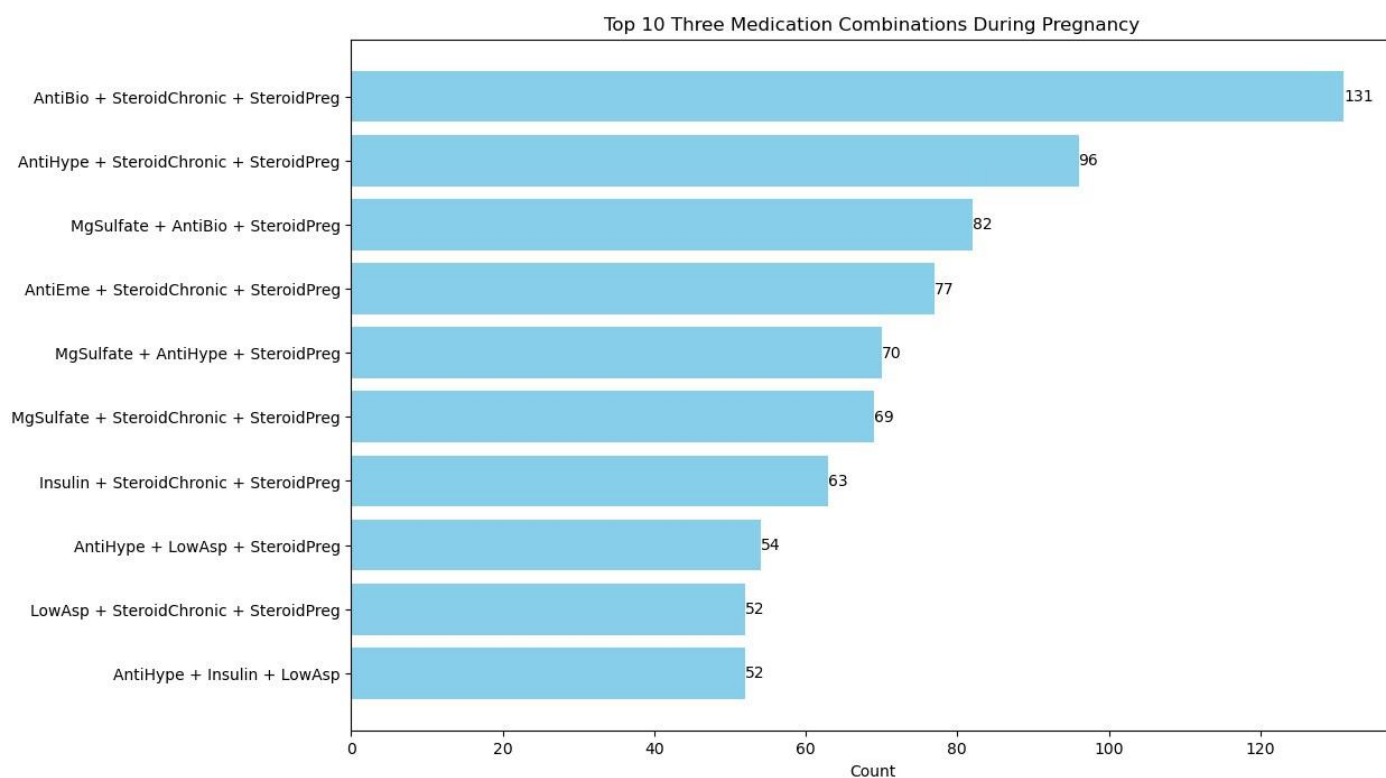


Figure S11: Top 10 three medication combinations used during pregnancy

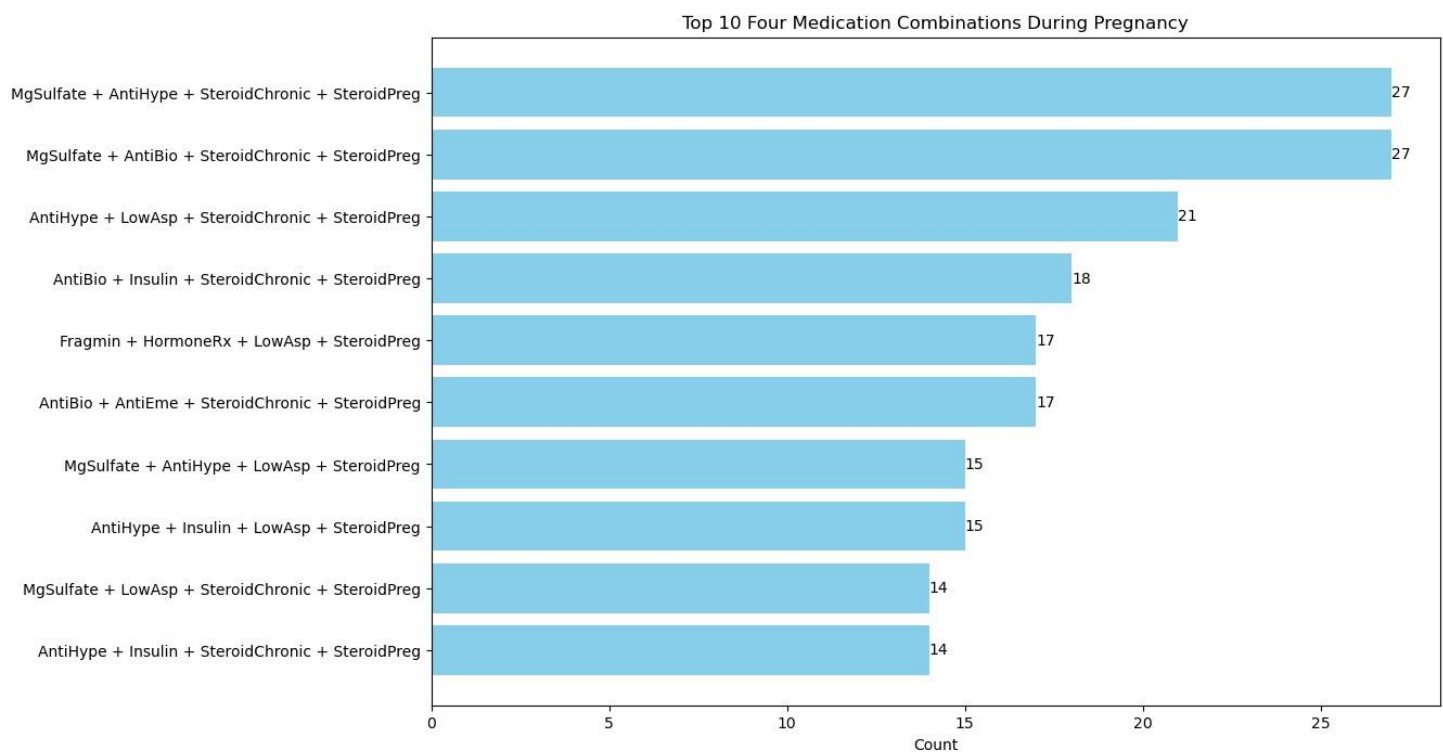


Figure S12: Top 10 four medication combinations used during pregnancy