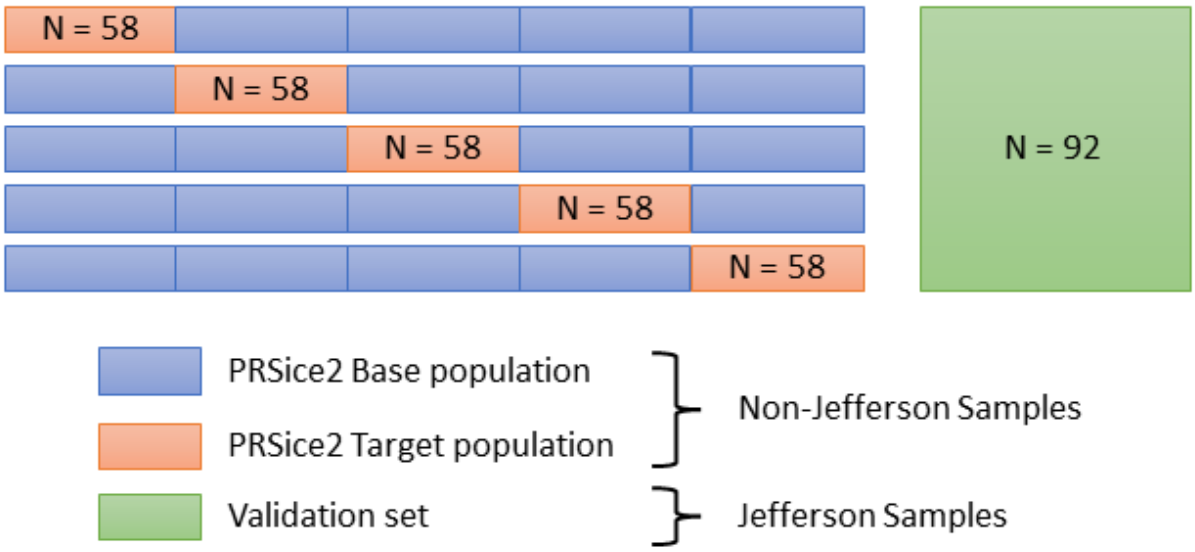
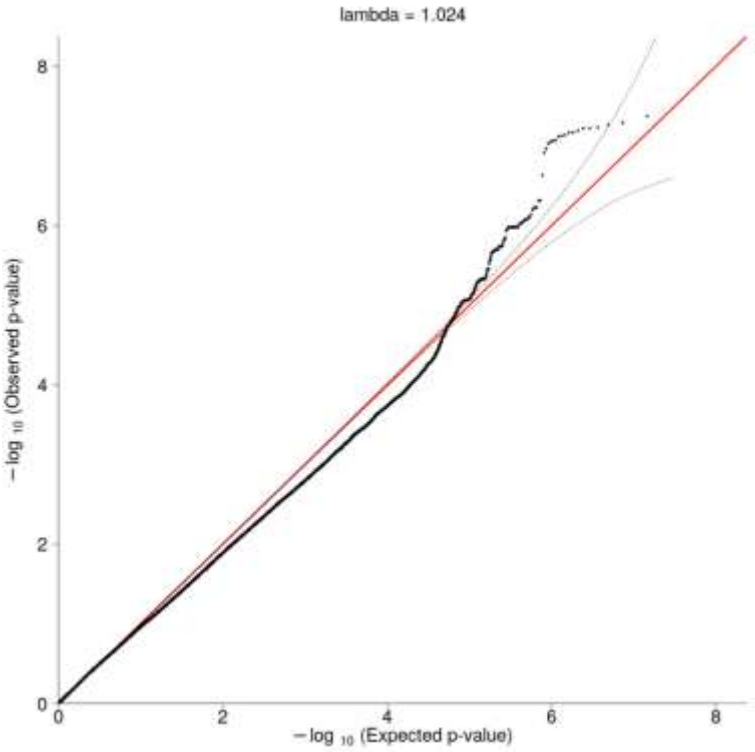
SUPPLEMENTARY MATERIALS

SUPPLEMENTARY FIGURES:

Supplementary Figure 1: Nested cross validation approach.

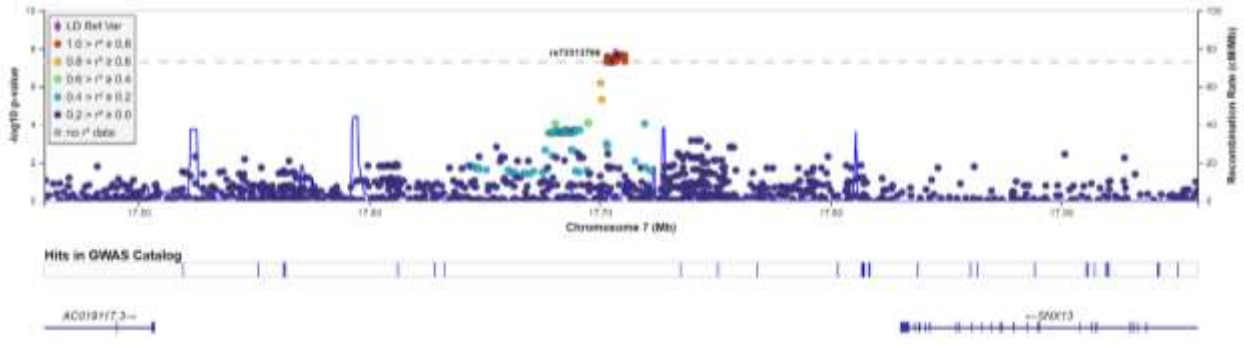


Supplementary Figure 2: QQ plot for trans-ancestry GWAS meta-analysis of need for pharmacotherapy for NAS.



Supplementary Figure 3: (A) LocusZoom plot of rs73313786 and the surrounding region for EUR GWAS of need for pharmacotherapy for NAS. (B) LocusZoom plot of rs73313786 and the surrounding region for AFR GWAS of need for pharmacotherapy for NAS.

A



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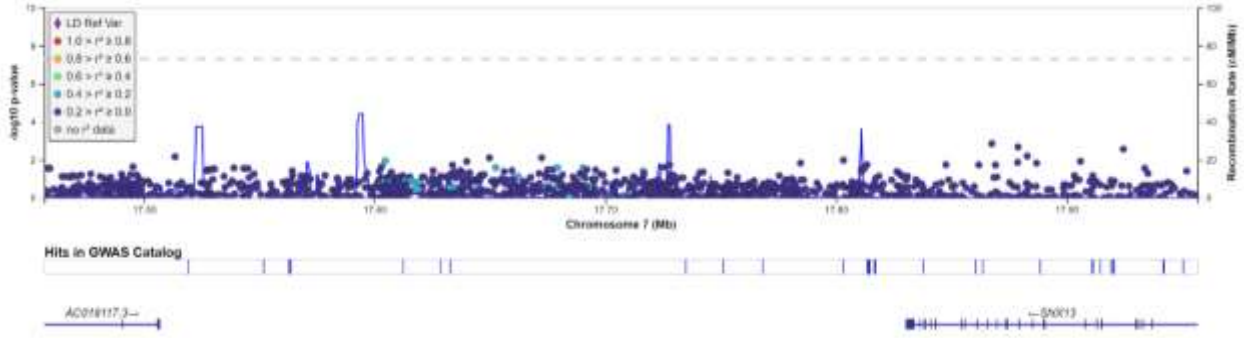
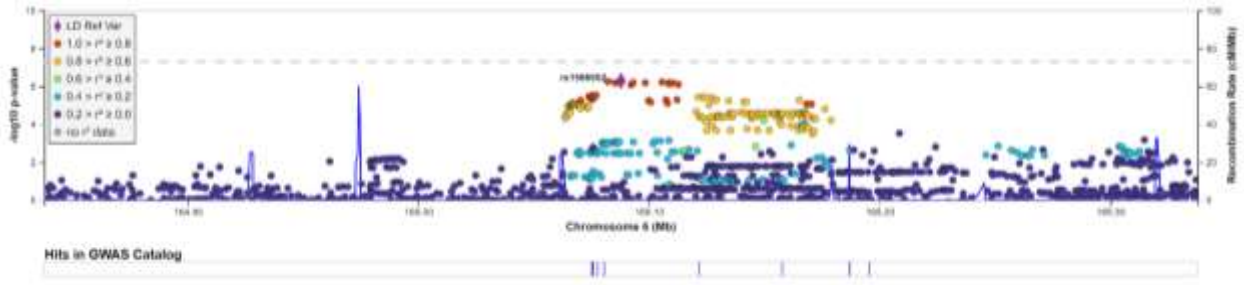


Supplementary Figure 4: (A) LocusZoom plot of rs1566002and the surrounding region for EUR GWAS of need for pharmacotherapy for NAS. (B) LocusZoom plot of rs1566002and the surrounding region for AFR GWAS of need for pharmacotherapy for NAS.

A



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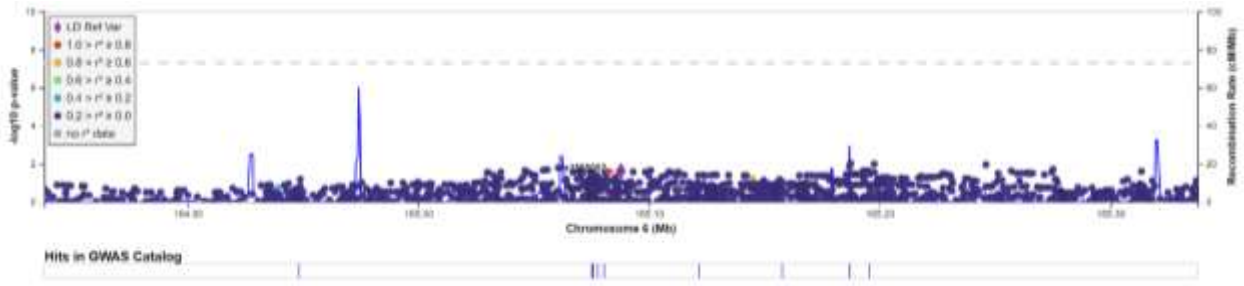
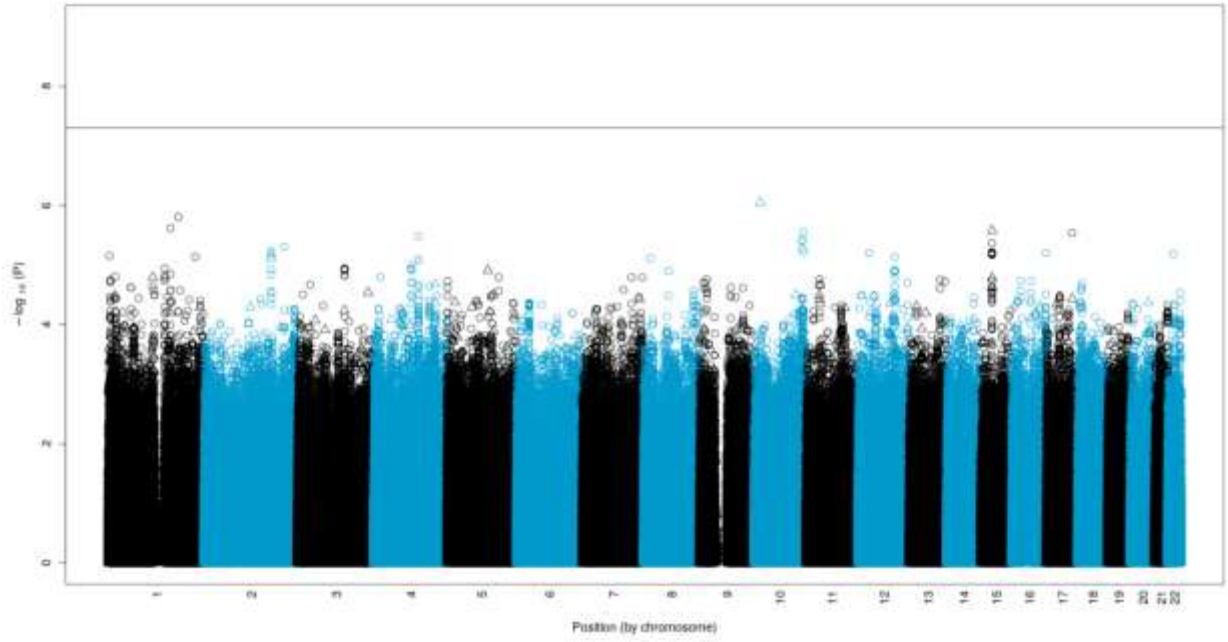


Supplementary Figure 5: (A) Manhattan plot for AFR GWAS of need for pharmacotherapy for NAS. (B) QQ plot for AFR GWAS of need for pharmacotherapy for NAS.

A



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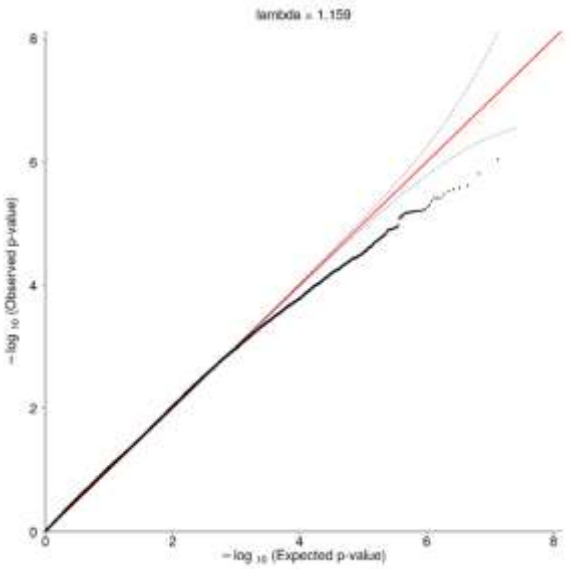
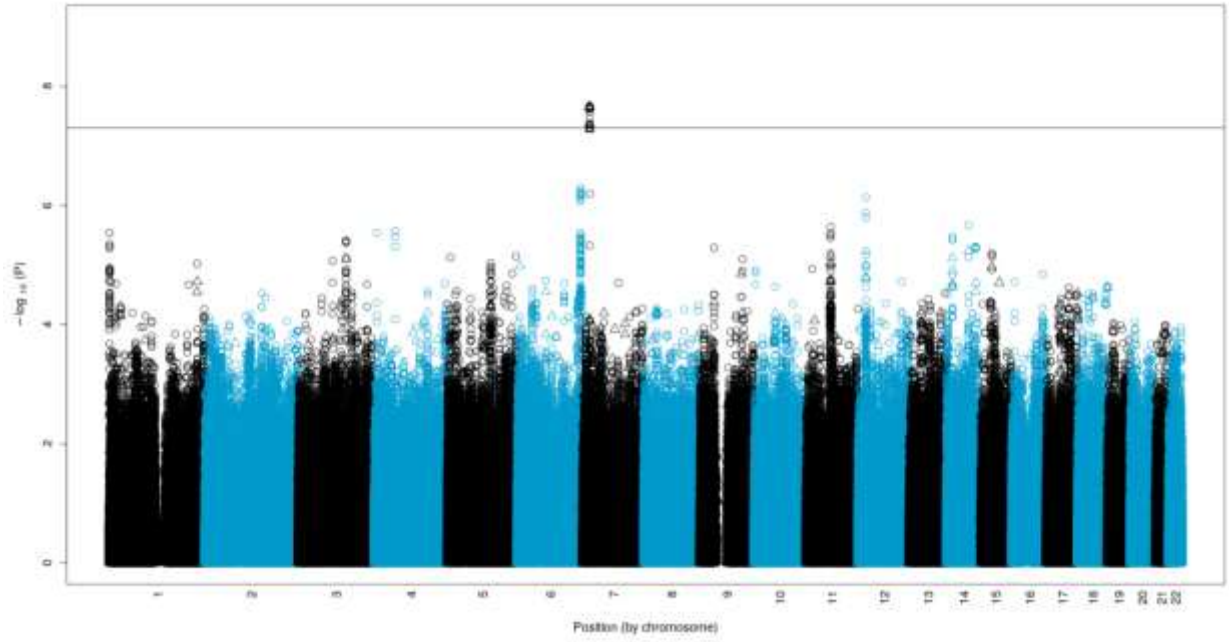


Supplementary Figure 6: (A) Manhattan plot for EUR GWAS of need for pharmacotherapy for NAS. (B) QQ plot for EUR GWAS of need for pharmacotherapy for NAS.

A



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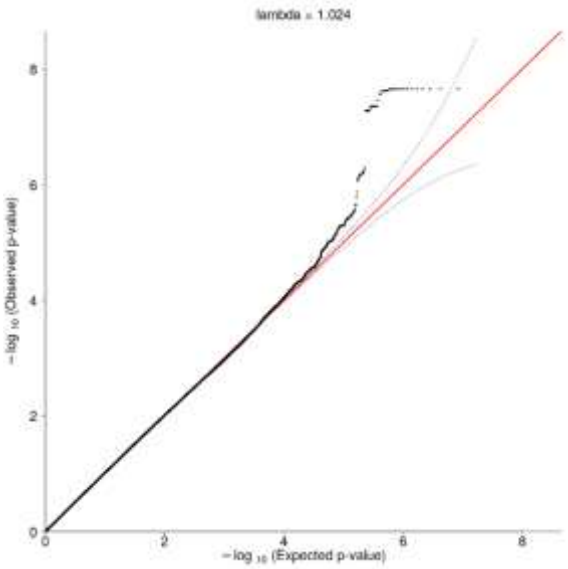
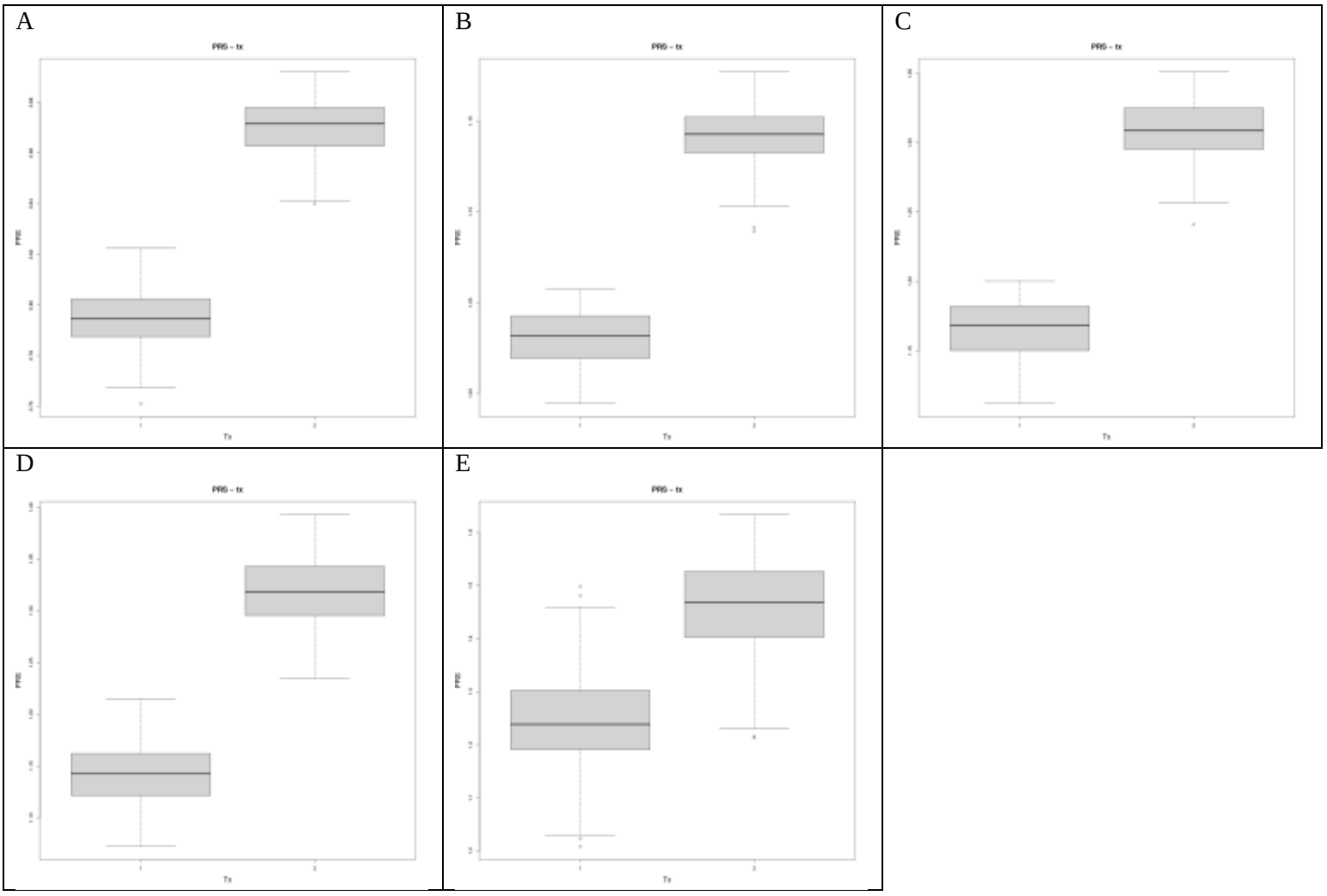
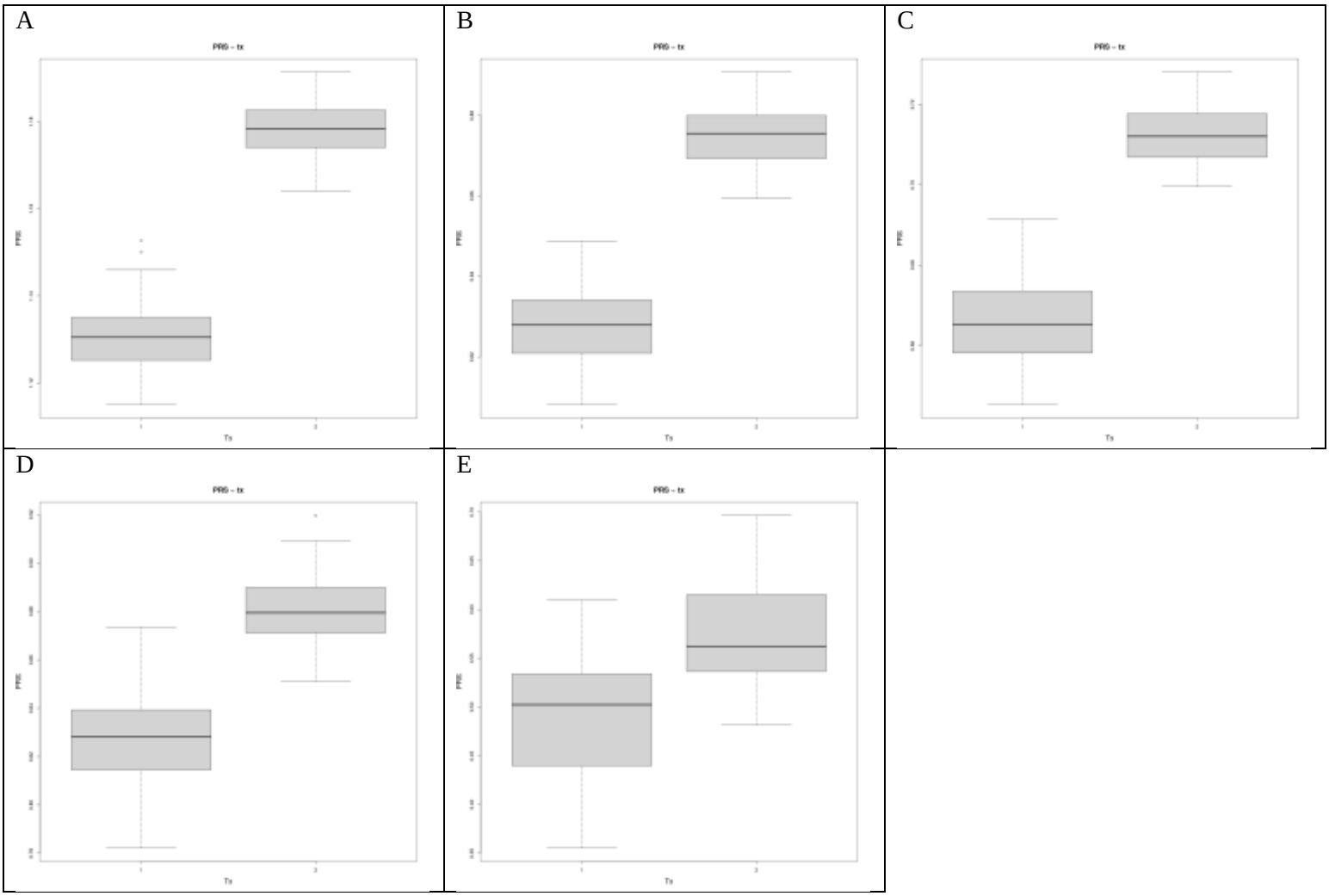


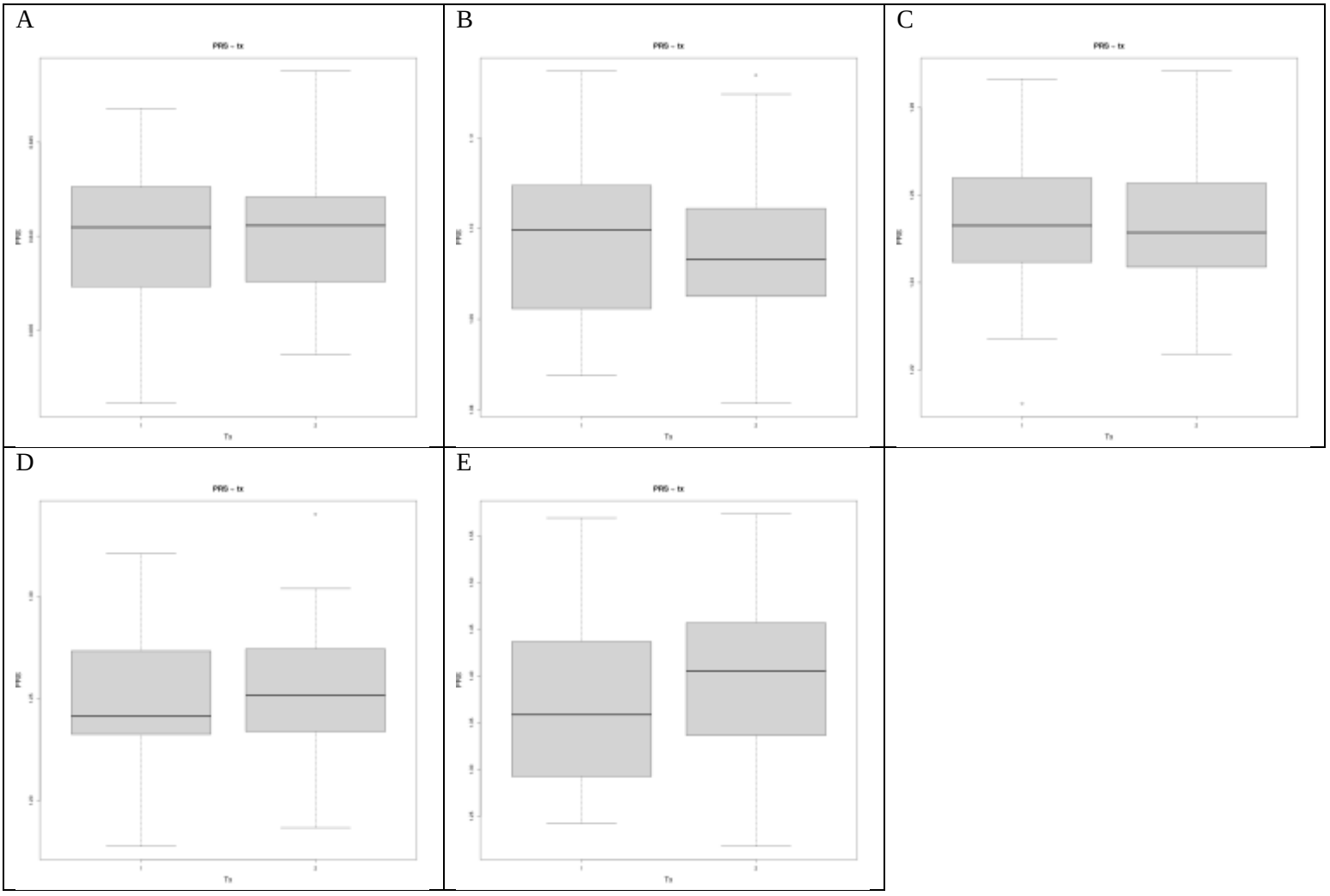
Supplementary Figure 7: Boxplot of performance of PRS model comprising variants present in (A) 1/5, (B) 2/5, (C) 3/5, (D) 4/5, or (E) 5/5 optimal PRS models from CVs in full EA training set. The x-axis represents treatment with pharmacotherapy (1=no treatment, 2=treatment). The y-axis represents the PRS values of individual participants.



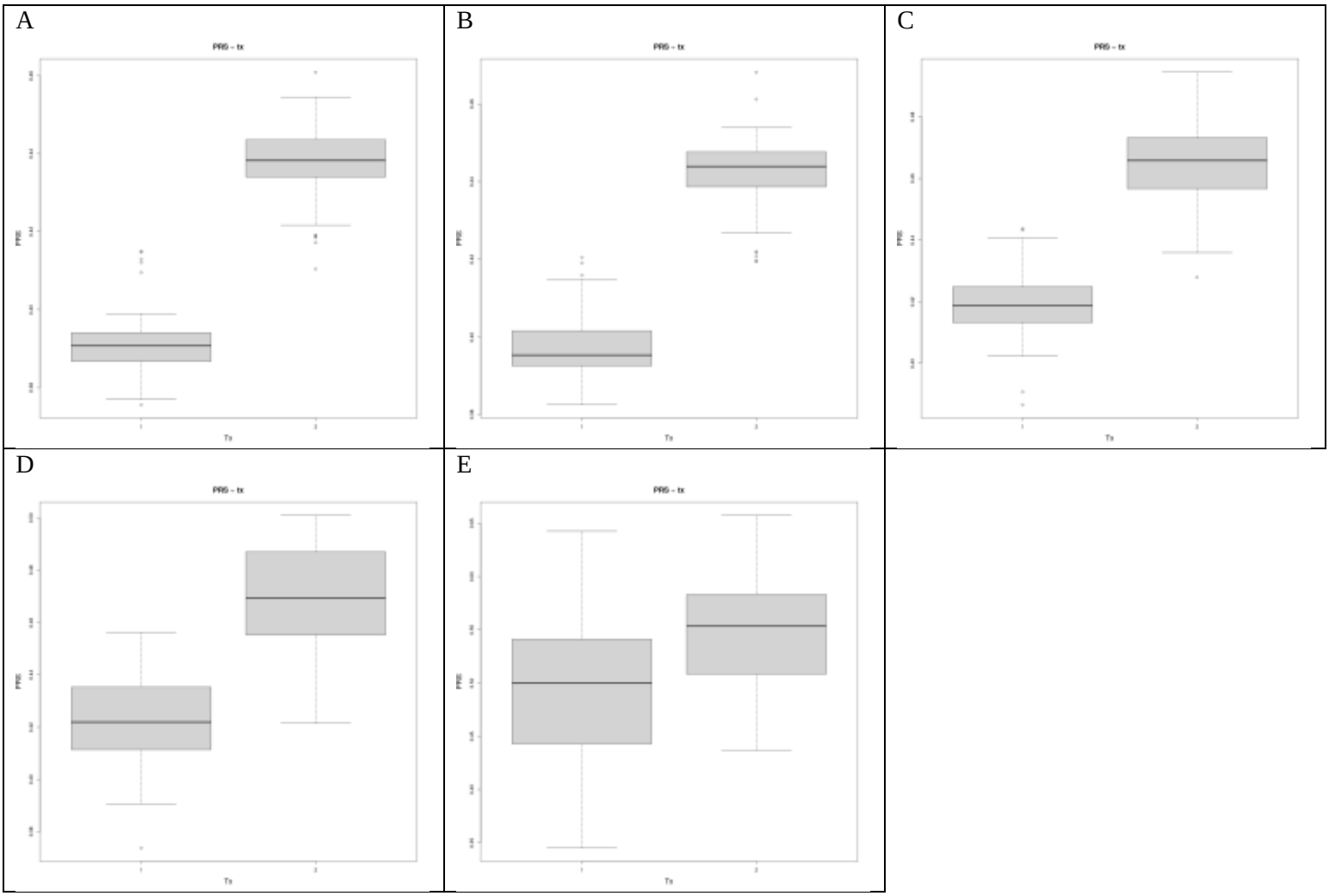
Supplementary Figure 8: Boxplot of performance of PRS model comprising variants present in (A) 1/5, (B) 2/5, (C) 3/5, (D) 4/5, or (E) 5/5 optimal PRS models from CVs in EA validation set using effect sizes from the validation set. The x-axis represents treatment with pharmacotherapy (1=no treatment, 2=treatment). The y-axis represents the PRS values of individual participants.



Supplementary Figure 9: Boxplot of performance of PRS model comprising variants present in (A) 1/5, (B) 2/5, (C) 3/5, (D) 4/5, or (E) 5/5 optimal PRS models from CVs in EA validation set using effect sizes from the training set. The x-axis represents treatment with pharmacotherapy (1=no treatment, 2=treatment). The y-axis represents the PRS values of individual participants.



Supplementary Figure 10: Boxplot of performance of PRS model comprising variants present in (A) 1/5, (B) 2/5, (C) 3/5, (D) 4/5, or (E) 5/5 optimal PRS models from CVs in AA neonates using effect sizes from AAs. The x-axis represents treatment with pharmacotherapy (1=no treatment, 2=treatment). The y-axis represents the PRS values of individual participants.



Supplementary Figure 11: Boxplot of performance of PRS model comprising variants present in (A) 1/5, (B) 2/5, (C) 3/5, (D) 4/5, or (E) 5/5 optimal PRS models from CVs in AA neonates using effect sizes from EAs. The x-axis represents treatment with pharmacotherapy (1=no treatment, 2=treatment). The y-axis represents the PRS values of individual participants.