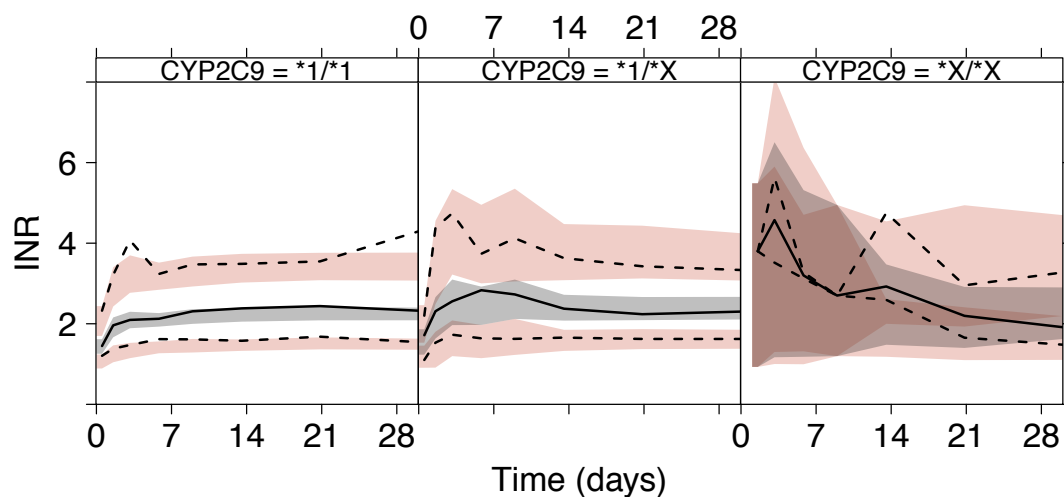**Supplementary Figure S1** Prediction corrected VPCs for the optimized model applied on data from 163 children but stratified on (A) *CYP2C9* genotype or (B) *CYP4F2* genotype. Figure 1A includes from left to right data from children with *CYP2C9 *1/*1* (high enzyme activity), *CYP2C9 *1/*2* or *1/*3* (intermediate enzyme activity), and *CYP2C9 *2/*2, *2/*3* or *3/*3* (low enzyme activity). The right panel, representing children with rare CYP2C9 genotypes, include data from only 4 children and results in wide prediction intervals that overlaps. Figure 1B includes from left to right data from children with *CYP4F2 *1/*1* (wild-type), *CYP4F2 *1/*3* (one variant allele) and *CYP4F2 *3/*3* (two variant alleles). There is no systematic bias in the VPCs suggesting that a child with the CYP4F2 variant allele requires a higher warfarin dose.

A)

B)