

**Additional file 11. Final models derived from independent voluntary pseudo-panel datasets – voluntary GZ subset and voluntary CD subset**

	Voluntary GZ Subset <sup>a</sup>			Voluntary CD Subset <sup>b</sup>		
	$\beta$	SE	p	$\beta$	SE	p
Intercept	0.6304	0.4531	0.1797	0.7783	0.2395	<b>0.0037</b>
timeBefore11	0.0400	0.0085	<0.0001	0.0499	0.0099	<0.0001
timeAfter11	0.0588	0.0115	<0.0001	0.0583	0.0114	<0.0001
Gender						
male vs. female	1.6519	0.4042	<b>0.0006</b>	0.9285	0.2110	<b>0.0003</b>
Blood donation history <sup>c</sup>						
WB vs. none	0.5769	0.5745	0.3274	0.2575	0.2971	0.3963
PLT vs. none	3.0199	0.5689	<0.0001	2.3244	0.2965	<0.0001
Both vs. none	4.3436	0.5692	<0.0001	3.2595	0.2966	<0.0001
timeAfter11 $\times$ gender						
time $\times$ male vs. time $\times$ female	0.0307	0.0092	<b>0.0009</b>	0.0185	0.0098	0.0610
timeAfter11 $\times$ history						
time $\times$ WB vs. time $\times$ none	0.0019	0.0137	0.8880	0.0019	0.0137	0.8883
time $\times$ PLT vs. time $\times$ none <sup>d</sup>	0.0390	0.0125	<b>0.0021</b>	0.1219	0.0136	<0.0001
time $\times$ Both vs. time $\times$ none <sup>d</sup>	0.0133	0.0126	0.2928	0.0484	0.0136	<b>0.0005</b>

<sup>a</sup>Model equation for voluntary GZ subset can be drew as: average platelet units per donor=0.6304 + 0.0400\*timeBefore11 + 0.0588\*timeAfter11 + 1.6519\*(gender=male) + 0.0000\*(gender=female) + 0.5769\*(history=WB) + 3.0199\*(history=PLT) + 4.3436\*(history=Both) + 0.0000\*(history=None) + 0.0307\*timeAfter11\*(gender=male) + 0.0000\*timeAfter11\*(gender=female)+ 0.0019\*timeAfter11\*(history=WB) + 0.0390\*timeAfter11\*(history=PLT)+ 0.0133\*timeAfter11\*(history=Both) + 0.0000\*timeAfter11\*(history=None).

<sup>b</sup>Model equation for voluntary CD subset can be drew as: average platelet units per donor=0.7783 + 0.0499\*timeBefore11 + 0.0583\*timeAfter11 + 0.9285\*(gender=male) + 0.0000\*(gender=female) + 0.2575\*(history=WB) + 2.3244\*(history=PLT) + 3.2595\*(history=Both) + 0.0000\*(history=None) + 0.0185\*timeAfter11\*(gender=male) + 0.0000\*timeAfter11\*(gender=female)+ 0.0019\*timeAfter11\*(history=WB) + 0.1219\*timeAfter11\*(history=PLT) + 0.0484\*timeAfter11\*(history=Both) + 0.0000\*timeAfter11\*(history=None).

<sup>c</sup>Values in bracket are the minimum and maximum number of individual donors in the cells across all involved cross-sections.

<sup>d</sup>The difference of the outcome change between time\*PLT and time\*Both was tested using Z=abs( $\beta_2 - \beta_1$ )/SQRT(SE<sub>1</sub><sup>2</sup> + SE<sub>2</sub><sup>2</sup>),  $\alpha=0.05$ , one-tailed. For voluntary CD subset: Z=3.821, p<0.0001.

**Bold** values denote statistical significance.