



Supplementary material

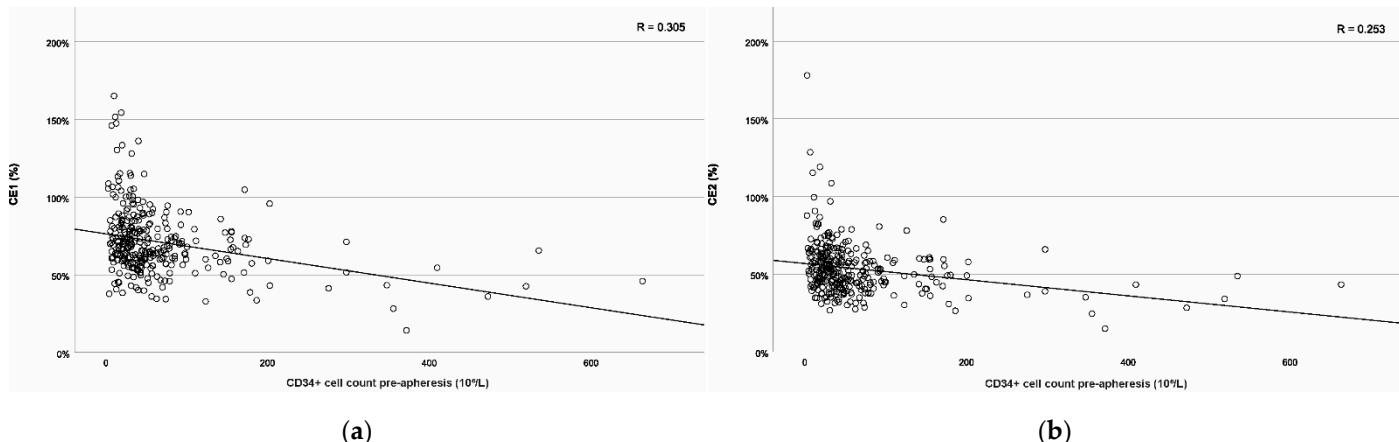


Figure S1. Relationship (linear regression analysis) between CD34+ cell count pre-apheresis and (a) CE1 or (b) CE2. CE, collection efficiency.

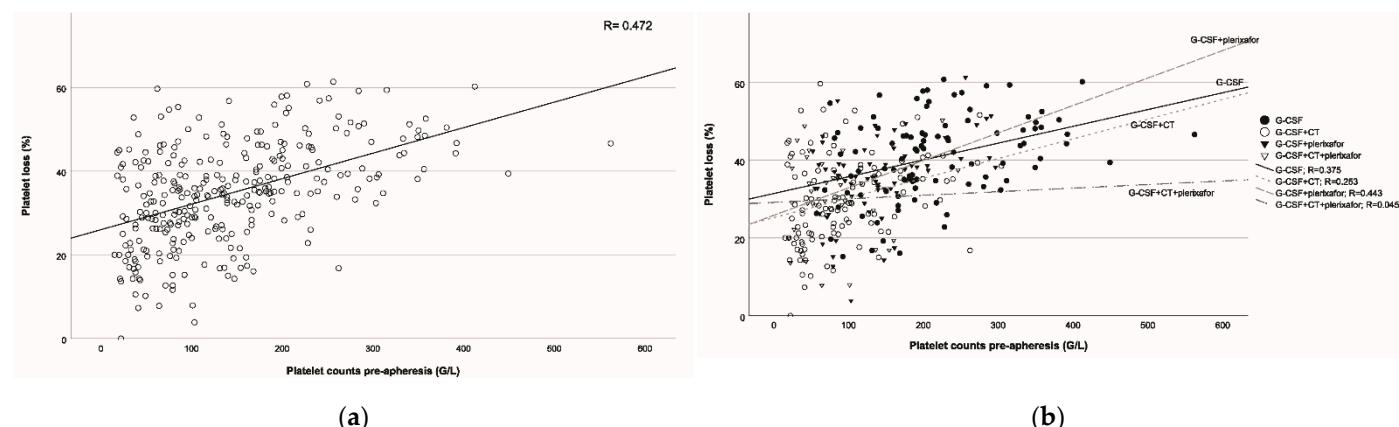


Figure S2. Relationship (linear regression analysis) between platelet count pre-apheresis and platelet loss (a) overall and (b) by mobilization regimen. G-CSF, granulocyte colony-stimulating factor; CT, chemotherapy.

Table S1. P-values from the Kruskal-Wallis test for between-subgroup comparisons of cell counts, product characteristics and performance of the collection protocol

| | G-CSF vs G-CSF + CT | G-CSF vs G-CSF + plerixafor | G-CSF vs G-CSF + CT + plerixafor | G-CSF + CT vs G-CSF + plerixafor | G-CSF + CT vs G-CSF + CT + plerixafor | G-CSF + CT + plerixafor vs G-CSF + plerixafor |
|----------------------------------|------------------------|--------------------------------|--|--|---|---|
| Recipient TBV (mL) | 0.383 | 0.890 | 0.154 | 0.529 | 0.407 | 0.218 |
| Recipient weight (kg) | 0.015 | 0.340 | 0.034 | 0.242 | 0.672 | 0.208 |
| <i>Pre-apheresis cell counts</i> | | | | | | |
| White blood cells ($10^9/L$) | <0.001 | 0.750 | 0.036 | <0.001 | 0.007 | 0.027 |
| Platelets ($10^9/L$) | <0.001 | <0.001 | <0.001 | <0.001 | 0.397 | <0.001 |
| Hematocrit (%) | <0.001 | 0.028 | <0.001 | <0.001 | 0.087 | <0.001 |
| CD34+ cells ($/\mu L$) | <0.001 | 0.107 | 0.007 | <0.001 | <0.001 | 0.188 |
| CD34+ (%) | <0.001 | 0.057 | 0.130 | <0.001 | <0.001 | 0.967 |
| <i>Post-apheresis</i> | | | | | | |
| CD34+ change (%) | 0.006 | 0.346 | 0.002 | 0.145 | 0.253 | 0.033 |
| <i>Product characteristics</i> | | | | | | |
| White blood cells ($10^9/L$) | <0.001 | 0.069 | 0.013 | <0.001 | 0.993 | <0.001 |

| | | | | | | |
|--|--------|--------|--------|--------|--------|--------|
| Platelets (10 ⁹ /L) | <0.001 | <0.001 | <0.001 | <0.001 | 0.135 | <0.001 |
| Hematocrit (%) | 0.264 | 0.304 | 0.662 | 0.040 | 0.219 | 0.720 |
| CD34+ x10 ⁶ product | <0.001 | 0.121 | 0.003 | <0.001 | <0.001 | 0.117 |
| CD34+ cells (10 ⁶ /kg b.w.) | <0.001 | 0.140 | 0.002 | <0.001 | <0.001 | 0.087 |
| Whole blood processed | <0.001 | 0.981 | 0.500 | <0.001 | 0.002 | 0.515 |
| TBV processed | <0.001 | 0.966 | 0.698 | <0.001 | <0.001 | 0.692 |
| Apheresis time | <0.001 | 0.911 | 0.967 | <0.001 | <0.001 | 0.901 |
| CD34+ CE 2 (%) | 0.056 | 0.480 | 0.757 | 0.016 | 0.292 | 0.406 |
| CD34+ CE1 (%) | 0.009 | 0.691 | 0.125 | 0.006 | 0.751 | 0.081 |
| Platelet loss (%) | <0.001 | 0.017 | <0.001 | 0.001 | 0.985 | 0.014 |
| Platelet CE1 (%) | <0.001 | 0.289 | <0.001 | <0.001 | 0.067 | <0.001 |
| CD34+ TP2 | 0.019 | 0.374 | 0.418 | 0.003 | 0.395 | 0.149 |
| CD34+ TP1 | <0.001 | <0.001 | 0.023 | <0.001 | 0.737 | 0.027 |
| CD34+ recruitment factor | <0.001 | 0.295 | 0.286 | <0.001 | <0.001 | 0.844 |

G-CSF, granulocyte colony-stimulating factor; CT, chemotherapy; b.w., body weight; TBV, total blood volume; CE, collection efficiency; TP, throughput.

Table S2. Summary of simple regression analysis calculating the impact of mobilization method (with or without plerixafor) on CE1 and CE2

| Model summary ^a | R | R ² | Adjusted R ² | SE of the estimate | |
|----------------------------|-------------------------|--------------------|-------------------------|---------------------------------|--------------------|
| CE1 | 0.071 | 0.05 | 0.002 | 21.35715% | |
| CE2 | 0.114 | 0.013 | 0.010 | 16.77803% | |
| ANOVA ^b | Sum of squares | Degrees of freedom | Mean square | F-ratio | |
| CE1 | | | | Significance level ^a | |
| Regression | 712.611 | 1 | 712.611 | 0.212 | |
| Residual | 140031.251 | 307 | 456.128 | | |
| Total | 140743.862 | 308 | | | |
| CE2 | | | | | |
| Regression | 1134.379 | 1 | 1134.379 | 0.046 | |
| Residual | 86421.226 | 307 | 281.502 | | |
| Total | 87555.605 | 308 | | | |
| Coefficients ^b | Unstandardized beta (B) | SE B | Standardized beta & | t test | Significance level |
| CE1 | | | | | |
| (Constant) | 70.165 | 1.474 | | 47.608 | 0.000 |
| Mobilization | 3.254 | 2.604 | 0.071 | 1.250 | 0.212 |
| CE2 | | | | | |
| (Constant) | 52.205 | 1.158 | | 45.090 | 0.000 |
| Mobilization | 4.106 | 2.045 | 0.114 | 2.007 | 0.046 |

CE, collection efficiency; SE, standard error.

Notes: ^a Predictors: (constant), mobilization method (0–1 variable; with or without plerixafor)

^b Dependent variable: CE (%)