**Supplemental Digital Content 7. Factors for successful protocol implementation**

Two performance indicators for **successful protocol implementation** were arbitrarily defined:

(1) Significant differences in hemoglobin levels over time;

(2) Significant differences in mean erythrocyte units/group).

We were also interested in identifying the **determinants of success**, i.e. factors that might explain why in some studies transfusion protocols were successfully implemented, whilst in others, this was not the case. Thus, we retrieved the following variables:

(1) Transfusion thresholds (hemoglobin (Hb) values or any other criteria guiding erythrocyte administration) and absolute difference between groups (i.e. [Hb value "liberal"] – [Hb value "restrictive"]);

(2) Transfusion-sparing effect: in each group, the proportion of patients not transfused was retrieved and the transfusion-sparing effect calculated (i.e. [% not transfused "restrictive"] – [% not transfused "liberal"]);

(3) Non-adherence rates, defined as any violation resulting in a dilution of intervention effects (such as situations where patients in the restrictive group were transfused above the prescribed threshold or situations where patients in the liberal group where not transfused, although this would have been indicated);

(4) Duration of transfusion protocol application;

(5) Duration of follow-up;

(6) Type of RBC administered (leukoreduction, volume and mean Hct);

(7) Mean storage duration before RBC administration.