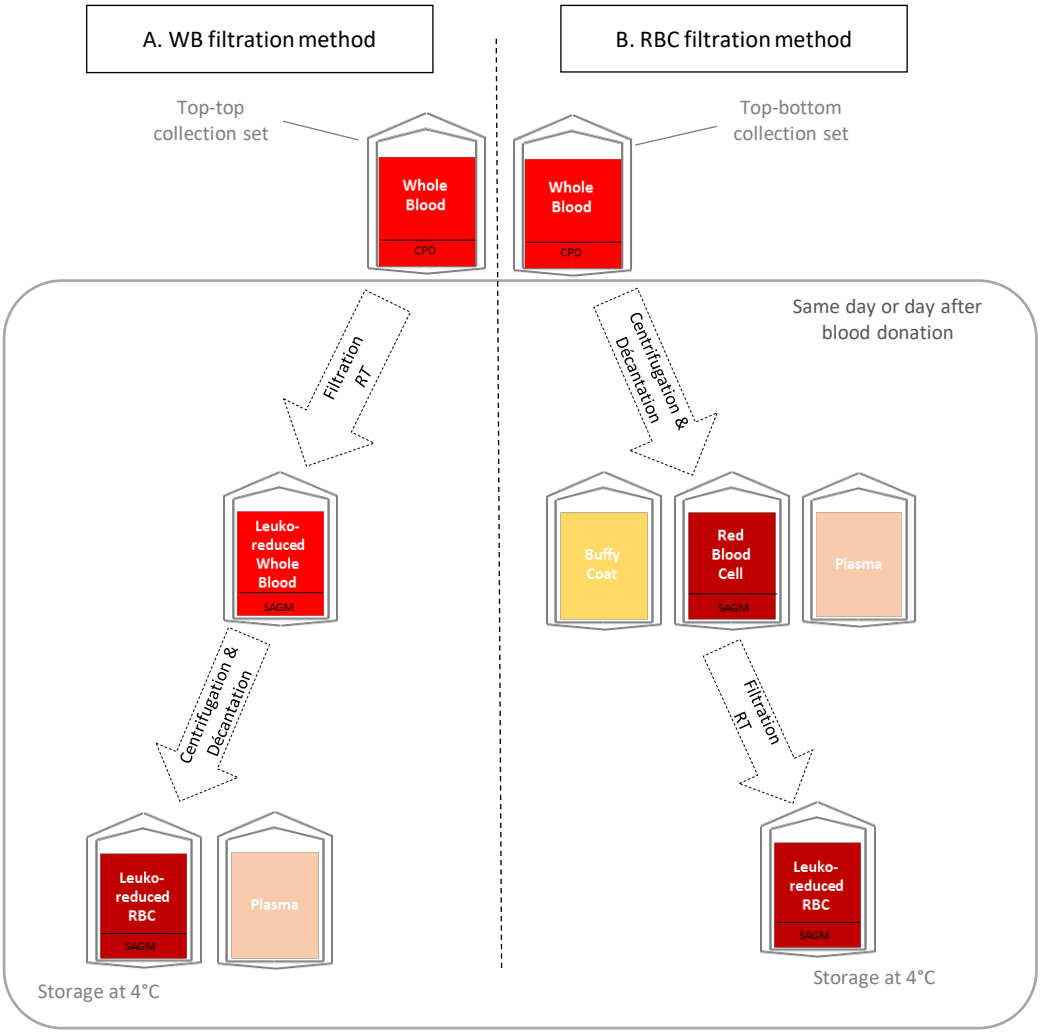
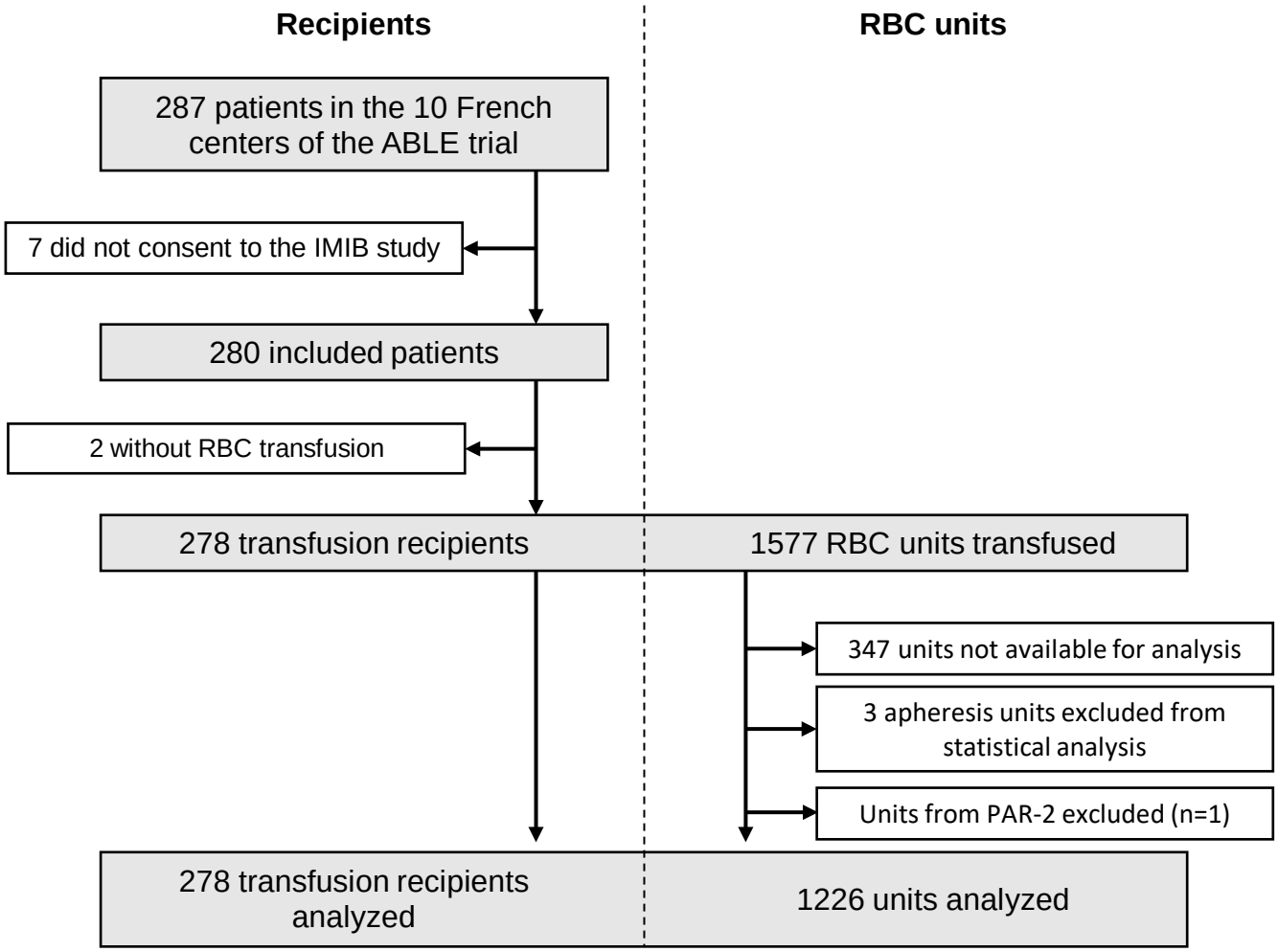
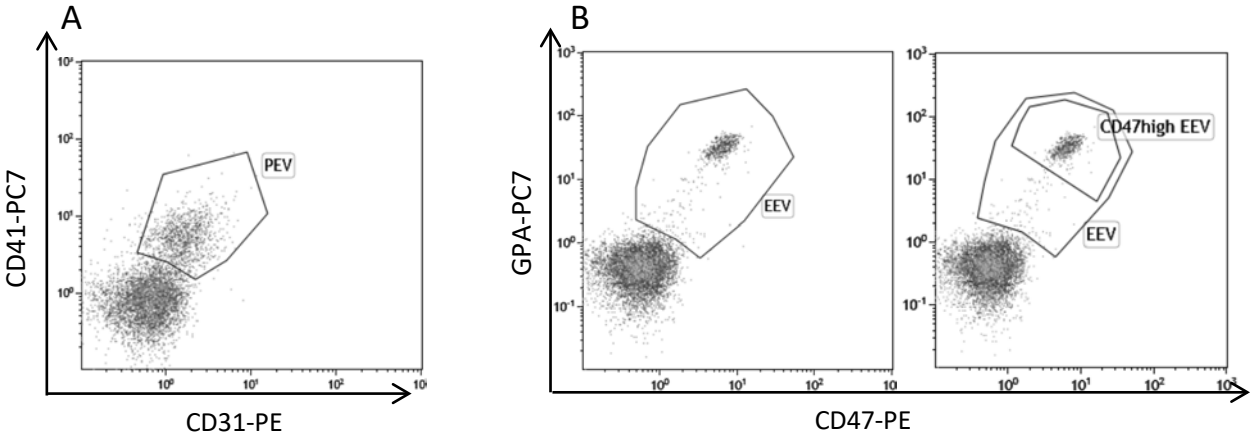


Supplemental Figure 1. Red blood cell (RBC) unit processing by whole-blood or red blood cell filtration
(A) Whole-blood-filtered units were collected into a top–top collection set with 66.6 mL of citrate-phosphate-dextrose anticoagulant (CPD). Whole blood was leukoreduced by filtration at room temperature and processed into an RBC unit and a plasma unit by centrifugation and decantation. Next, 105 mL of additive solution containing saline, adenine, glucose, and mannitol (SAGM) was added.
(B) RBC-filtered units were collected using top-bottom collection sets with 66.6 mL of CPD. Whole blood (WB) was rapidly cooled to 18–24°C after collection. RBCs, platelets and plasma were separated by centrifugation and decantation using a Compomat automat (Fresenius Kabi, Bothell, WA, USA); RBC were leukoreduced by filtration at room temperature and 105 mL of SAGM was added.
RT, room temperature.



Supplemental Figure 2. Flow chart of study patients and RBC units.



Supplemental Figure 3. Gating strategy for PEV and EEV quantification.

A. $CD41^{+}$ and $CD31^{+}$ correspond to total PEVs.

B. GPA^{+} $CD47^{+}$ correspond to total EEVs and GPA^{+} $CD47^{high}$ correspond to EEVs with high expression of CD47 protein.