Supplement 3

Preparation of replaced platelet concentrates using M-sol

(Modified SOP at Japanese Red Cross Hokkaido Blood Center, Sapporo, Japan)
1. Reagents and materials

- Platelet concentrates (PC)
- Additive solution (M-sol)
  When M-sol is vacuum packed by aluminum package, check the vacuum condition before usage.
  (No breakage on the package and vacuum condition is kept well)
  After opening the package, use M-sol as soon as possible.

300mL single bag for sterile connection device (SCD)

2. Method for preparation

1. Centrifuge PC(2930 rpm, 10 min, 22℃)
   Put the PO bag in a centrifuge cup and centrifuge.

2. Connect the PO bag with 300mL single bag using SCD.

3. Set it in a separation stand.

4. Remove supernatant as much as possible.

5. Connect the PO bag with the M-sol bag using SCD and add 220 mL (220 g) of M-sol into the bag.

6. Seal and cut off the M-sol bag and place the PO bag for 30 min at room temperature.

7. After placing, agitate the PO bag for 30 min.
   If any clots are found in PO bag after 30 min agitation, continue agitating while the clots disappear.

8. Visual inspection for PO bag.
   Practice visual inspection (clots and swilling etc.), and check if the appearance is proper.

9. Count the platelet number of replaced-PC.

10. Measure the volume.

11. Calculate the recovery percentile of platelet.
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   \% \text{ recovery} = \frac{\text{total platelet count after washing}}{\text{total platelet count before washing}} \times 100
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