**eTable 4:** Effects of storage, washing and rejuvenation on red cell units.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Day 1 | Day 14 Unwashed | Day 14 Washed | Day 14 Rejuvesol-Washed | p-value |
| **Erythrocyte Factors** |  |  |  |  |  |
| RBC (x1012/L) | 7.7±1.3 | 7.5±1.2 | 7.2±0.9 | 6.2±2.2 | 0.23 |
| MCV (f/L) | 63.6±1.0 | 64.6±1.0 | 58.1±9.4 | 67±0.3 | 0.08 |
| Hb (g/dL) | 145±24.5 | 142±23 | 128±13 | 124±5 | 0.37 |
| Hct (%) | 49.4±8.4 | 48.8±7.9 | 49.7±6.5 | 42±14 | 0.38 |
| Erythrocyte ATP Conc. (μmol/g Hb) | 2.0±0.6 | 0.8±0.3# | 1.3±0.1§ | 1.8±0.4† | < 0.01 |
| Erythrocyte 2,3 DPG Conc. (umol/g Hb) | 14.4±4 | 6.5±1.6# | 13.8±0.1§ | 18.3±7.5† | 0.01 |
| Elongation Index (30Pa) | 0.5±0.03 | 0.43±.01 | 0.4±0.0 | 0.52±0.02\*,†,‡ | < 0.01 |
| Red Cell Survival (% of maximum) | 94% | 72% | 71% | 68% | -- |
| **Supernatant Factors** |  |  |  |  |  |
| PO2 (mmHg) | 86±7.6 | 176±21.8 # | 137±5.6|| | 293±18\*,†,‡ | < 0.01 |
| Potassium(mmol/L) | 1.1±0.4 | 19±7.4# | 3.2±1.5§ | 2.2±0.7† | < 0.01 |
| Sodium(mmol/L) | 140±3.2 | 124.8±8.7# | 146±2.4§ | 144±2† | < 0.01 |
| Glucose (mmol/L) | 34.5±3.0 | 33.3±2.2# | 3.6±1.3§,|| | 0.4±0.3\*,†,‡ | < 0.01 |
| Lactate (mmol/L) | 0.85±0.2 | 2.3±0.3# | 1.0±0.4§ | 5.4±1.8\*,‡ | < 0.01 |
| Haemolysis Index (%) | 0.07±0.1 | 0.1±0.04 | 1.0±0.02§,|| | 0.1±0.03‡ | < 0.01 |
| Annexin-V+ Microparticles  (FACS: Events/μl) | 1581.7±508.6 | 2589.3±184.8# | 1113.8±363.3§ | \*\* | < 0.01 |

Data is presented as mean±SD. Post hoc intergroup comparisons p<0.05 key:

**\*:** D14 Rejuvesol-Washed vs. Day 0,

**†:** D 14 Rejuvesol –Washed vs. D14 Unwashed,

**‡:** D14 Rejuvesol-Washed vs. D14 Washed,

**§:** D14 Washed vs. Unwashed, ||: D14 Washed vs. Day 0,

**#:** D14 Unwashed vs. Day 0,g: D14 Rejuvesol Washed vs. Day 7),

**\*\*:** Experiment not repeated for Rejuvesol group.