

EQA round: RET1/25 - Reticulocytes

Deadline: 18.4.2025

Setup: groups - P (manufacturer of instrument); Slovakia; minimal size of the groups n = 5

| | | |
|---|--|---|
| RoM = robust average | AV = assigned value | D _{max} = acceptable difference |
| SD = standard deviation | CVP = consensus of all participants | LL = lower limit |
| CV = coefficient of variation | CVPG = consensus of the participants' groups | UL = upper limit |
| N _{tot} = total number of the results | U _{AV} = expanded uncertainty of the assigned value (k = 2) | N _{eva} = number of the results assessed |
| N _{out} = number of the results removed before calculation | | N _{suc} = number of successful results |
| | | S _{rel} = relative success |

| Test Sample Group | [unit] | RoM | SD | CV [%] | N _{tot} | N _{out} | Comparability | | | | | N _{eva} | N _{suc} | S _{rel} [%] | |
|---|-----------------------|------|------|-----------|------------------|------------------|---------------|-----------------|------------------|-----|------|------------------|------------------|-------------------------|-----|
| | | | | | | | AV | U _{AV} | D _{max} | LL | UL | | | | |
| (120) Reticulocyte count (analyser) | [·10 ⁹ /L] | | | | 44 | | | | | | | 44 | 35 | 80 | |
| Sample A | | 73,5 | 13 | 18 | 44 | | CVP | 70,4 | 2,2 | 40% | 42,2 | 98,6 | 44 | 38 | 86 |
| (12) Beckman Coulter | | 44,8 | 12 | 26 | 5 | 0 | | | | | | | 5 | | |
| (63) Sysmex | | 71,1 | 5,6 | 7,9 | 11 | 0 | | | | | | | 11 | | |
| (177) Mindray | | 80,4 | 7,2 | 8,9 | 26 | 1 | | | | | | | 26 | | |
| Other | | | | | 2 | 0 | | | | | | | 2 | | |
| | | | | | | | 1x 1, 1x 179 | | | | | | | | |
| Sample B | | 42,1 | 11 | 27 | 44 | | CVP | 48,5 | 1,6 | 40% | 29,1 | 67,9 | 44 | 38 | 86 |
| (12) Beckman Coulter | | 28,6 | 0,89 | 3,1 | 5 | 0 | | | | | | | 5 | | |
| (63) Sysmex | | 52,7 | 2,5 | 4,7 | 11 | 0 | | | | | | | 11 | | |
| (177) Mindray | | 40,9 | 6,7 | 16 | 26 | 0 | | | | | | | 26 | | |
| Other | | | | | 2 | 0 | | | | | | | 2 | | |
| | | | | | | | 1x 1, 1x 179 | | | | | | | | |
| (138) Reticulocyte count (microscope) | [·10 ⁹ /L] | | | | 2 | | | | | | | 2 | 1 | 50 | |
| Sample A | | 64,4 | 0 | 0 | 2 | | CVP | 63,1 | 5,5 | 45% | 34,7 | 91,5 | 2 | 1 | 50 |
| Other | | | | | 2 | 1 | | | | | | | 2 | | |
| | | | | | | | 2x 0 | | | | | | | | |
| Sample B | | 44,3 | 5,9 | 13 | 2 | | CVP | 45,7 | 4,5 | 45% | 25,1 | 66,3 | 2 | 2 | 100 |
| Other | | | | | 2 | 0 | | | | | | | 2 | | |
| | | | | | | | 2x 0 | | | | | | | | |
| (126) Immature reticulocyte fraction | [%] | | | | 31 | | | | | | | 30 | 26 | 87 | |
| Sample A | | 9,05 | 2,7 | 29 | 31 | | | | | | | 30 | 28 | 93 | |
| (63) Sysmex | | 9,6 | 1,3 | 14 | 6 | 0 | CVPG | 9,56 | 0,44 | 45% | 5,25 | 13,9 | 6 | | |
| (177) Mindray | | 7,94 | 1,9 | 24 | 20 | 0 | CVPG | 8,45 | 0,94 | 45% | 4,64 | 12,3 | 20 | | |
| Other | | | | | 5 | 0 | | | | | | | 4 | | |
| | | | | | | | 4x 12, 1x 179 | | | | | | | | |
| Sample B | | 6,87 | 2,4 | 35 | 31 | | | | | | | 30 | 27 | 90 | |
| (63) Sysmex | | 6,79 | 0,28 | 4,1 | 6 | 0 | CVPG | 6,14 | 0,34 | 45% | 3,37 | 8,91 | 6 | | |
| (177) Mindray | | 6,12 | 1,8 | 30 | 20 | 1 | CVPG | 6,45 | 0,87 | 45% | 3,54 | 9,36 | 20 | | |
| Other | | | | | 5 | 0 | | | | | | | 4 | | |
| | | | | | | | 4x 12, 1x 179 | | | | | | | | |
| (128) Mean amount of hemoglobin in reticulocytes | [pg] | | | | 26 | | | | | | | 26 | 22 | 85 | |
| Sample A | | 31,1 | 4 | 13 | 26 | | | | | | | 26 | 22 | 85 | |
| (63) Sysmex | | 35,6 | 0,82 | 2,3 | 7 | 0 | CVPG | 35,5 | 0,23 | 10% | 31,9 | 39,1 | 7 | | |
| (177) Mindray | | 29,2 | 2,3 | 8 | 18 | 0 | CVPG | 29 | 0,82 | 10% | 26,1 | 31,9 | 18 | | |
| Other | | | | | 1 | 0 | | | | | | | 1 | | |
| | | | | | | | 1x 179 | | | | | | | | |
| Sample B | | 29,7 | 3,4 | 11 | 26 | | | | | | | 26 | 23 | 88 | |
| (63) Sysmex | | 33,2 | 0,96 | 2,9 | 7 | 0 | CVPG | 33,6 | 0,21 | 10% | 30,2 | 37 | 7 | | |
| (177) Mindray | | 28,1 | 1,6 | 5,6 | 18 | 0 | CVPG | 27,9 | 0,62 | 10% | 25,1 | 30,7 | 18 | | |
| Other | | | | | 1 | 0 | | | | | | | 1 | | |
| | | | | | | | 1x 179 | | | | | | | | |
| (127) Mean reticulocyte volume | [fL] | | | | 13 | | | | | | | 13 | 10 | 77 | |
| Sample A | | 105 | 7,6 | 7,2 | 13 | | CVP | 106 | 2,8 | 10% | 95,4 | 117 | 13 | 11 | 85 |
| (177) Mindray | | 102 | 6,7 | 6,6 | 9 | 0 | | | | | | | 9 | | |
| Other | | | | | 4 | 0 | | | | | | | 4 | | |
| | | | | | | | 4x 12 | | | | | | | | |
| Sample B | | 101 | 5,3 | 5,2 | 13 | | CVP | 102 | 2,2 | 10% | 91,8 | 113 | 13 | 11 | 85 |
| (177) Mindray | | 99,6 | 4,9 | 4,9 | 9 | 0 | | | | | | | 9 | | |
| Other | | | | | 4 | 0 | | | | | | | 4 | | |
| | | | | | | | 4x 12 | | | | | | | | |