# Summary statistics - quantitative results

Filter: minimal size of the groups n = 5

## EQA round: KO5/20 - Blood Count

Deadline: 11.09.2020

RoM = robust average
SD = standard deviation
CV = coefficient of variation
Ntot = total number of the participants
Nout = number of results excluded before calculation

AV = assigned value
CRV = certified reference value
RV = reference value
CVE = consensus value from experts
CVP = consensus value from all participants
CVPG = consensus value from participants groups
$U_{AV}$ = expanded uncertainty of the assigned value (k = 2)

Dmax = acceptable percent difference
LL = lower limit
UL = upper limit
Neva = number of evaluated participants
Nsuc = number of successful participants
Srel = success (relative)

| Test [unit] | RoM | SD | CV [%] | $N_{tot}$ | $N_{out}$ | Comparability: AV | $U_{AV}$ | $D_{max}$ | LL | UL | $N_{eva}$ | $N_{suc}$ | $S_{rel}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **(150) WBC** [·10(exp9)/L] | | | | 164 | | | | | | | 164 | 150 | 91% |
| Samples and groups | | | | | | | | | | | | | |
| **Sample A** | 5,89 | 0,21 | 3,5 | 164 | | CVP 5,89 | 0,039 | 15% | 5 | 6,78 | 164 | 156 | 95% |
| All results | 5,89 | 0,21 | 3,5 | 164 | 0 | | | | | | 164 | | |
| **Sample B** | 20,4 | 1,1 | 5,5 | 164 | | CVP 20,4 | 0,21 | 15% | 17,3 | 23,5 | 164 | 156 | 95% |
| All results | 20,4 | 1,1 | 5,5 | 164 | 0 | | | | | | 164 | | |
| **(151) RBC** [·10(exp12)/L] | | | | 164 | | | | | | | 164 | 162 | 99% |
| Samples and groups | | | | | | | | | | | | | |
| **Sample A** | 4,48 | 0,07 | 1,6 | 164 | | CVP 4,48 | 0,014 | 7% | 4,16 | 4,8 | 164 | 162 | 99% |
| All results | 4,48 | 0,07 | 1,6 | 164 | 0 | | | | | | 164 | | |
| **Sample B** | 3,92 | 0,069 | 1,8 | 164 | | CVP 3,92 | 0,013 | 7% | 3,64 | 4,2 | 164 | 163 | 99% |
| All results | 3,92 | 0,069 | 1,8 | 164 | 0 | | | | | | 164 | | |
| **(152) Haemoglobin** [g/L] | | | | 169 | | | | | | | 169 | 169 | 100% |
| Samples and groups | | | | | | | | | | | | | |
| **Sample A** | 130 | 2,2 | 1,7 | 169 | | CVP 130 | 0,41 | 6% | 122 | 138 | 169 | 169 | 100% |
| All results | 130 | 2,2 | 1,7 | 169 | 0 | | | | | | 169 | | |
| **Sample B** | 126 | 2,2 | 1,7 | 169 | | CVP 126 | 0,41 | 6% | 118 | 134 | 169 | 169 | 100% |
| All results | 126 | 2,2 | 1,7 | 169 | 0 | | | | | | 169 | | |
| **(153) HCT** [-] | | | | 164 | | | | | | | 164 | 163 | 99% |
| Samples and groups | | | | | | | | | | | | | |
| **Sample A** | 0,404 | 0,011 | 2,7 | 164 | | CVP 0,404 | ,0021 | 10% | 0,363 | 0,445 | 164 | 164 | 100% |
| All results | 0,404 | 0,011 | 2,7 | 164 | 0 | | | | | | 164 | | |
| **Sample B** | 0,401 | 0,015 | 3,7 | 164 | | CVP 0,401 | ,0029 | 10% | 0,36 | 0,442 | 164 | 163 | 99% |
| All results | 0,401 | 0,015 | 3,7 | 164 | 0 | | | | | | 164 | | |
| **(154) MCV** [fL] | | | | 164 | | | | | | | 164 | 163 | 99% |
| Samples and groups | | | | | | | | | | | | | |
| **Sample A** | 90,4 | 2,4 | 2,7 | 164 | | CVP 90,4 | 0,46 | 10% | 81,3 | 99,5 | 164 | 163 | 99% |
| All results | 90,4 | 2,4 | 2,7 | 164 | 0 | | | | | | 164 | | |
| **Sample B** | 102 | 3,8 | 3,7 | 164 | | CVP 102 | 0,72 | 10% | 91,8 | 113 | 164 | 164 | 100% |
| All results | 102 | 3,8 | 3,7 | 164 | 0 | | | | | | 164 | | |
| **(155) Platelets** [·10(exp9)/L] | | | | 164 | | | | | | | 164 | 163 | 99% |
| Samples and groups | | | | | | | | | | | | | |
| **Sample A** | 248 | 12 | 4,9 | 164 | | CVP 248 | 2,3 | 20% | 198 | 298 | 164 | 163 | 99% |
| All results | 248 | 12 | 4,9 | 164 | 0 | | | | | | 164 | | |
| **Sample B** | 137 | 7,1 | 5,2 | 164 | | CVP 137 | 1,4 | 27% | 100 | 174 | 164 | 163 | 99% |
| All results | 137 | 7,1 | 5,2 | 164 | 0 | | | | | | 164 | | |
| **(156) RDW** [%] | | | | 147 | | | | | | | 139 | 130 | 94% |
| Samples and groups | | | | | | | | | | | | | |
| **Sample A** | 14,9 | 0,56 | 3,8 | 147 | | | | | | | 139 | 131 | 94% |
| (1) Abbott | 13,5 | 0,65 | 4,8 | 11 | 0 | CVPG 13,5 | 0,48 | 10% | 12,1 | 14,9 | 11 | | |
| (12) Beckman Coulter | 15,8 | 0,44 | 2,8 | 6 | 0 | CVPG 15,8 | 0,62 | 10% | 14,2 | 17,4 | 6 | | |
| (63) Sysmex | 15,0 | 0,38 | 2,5 | 95 | 3 | CVPG 15 | 0,097 | 10% | 13,5 | 16,5 | 95 | | |
| (177) MINDRAY | 15,1 | 0,55 | 3,7 | 14 | 0 | CVPG 15,1 | 0,36 | 10% | 13,5 | 16,7 | 14 | | |
| (179) Siemens | 14,7 | 0,60 | 4,0 | 13 | 0 | CVPG 14,7 | 0,40 | 10% | 13,2 | 16,2 | 13 | | |
| Other | | | | 8 | 0 | | | | | | 0 | | |
| | | | | | | 2x 46, 4x 157, 1x 204, 1x 205 | | | | | | | |
| **Sample B** | 15,7 | 0,58 | 3,7 | 147 | | | | | | | 139 | 133 | 96% |
| (1) Abbott | 14,8 | 0,34 | 2,3 | 11 | 0 | CVPG 14,8 | 0,25 | 10% | 13,3 | 16,3 | 11 | | |
| (12) Beckman Coulter | 16,9 | 0,37 | 2,2 | 6 | 0 | CVPG 16,9 | 0,52 | 10% | 15,2 | 18,6 | 6 | | |
| (63) Sysmex | 15,8 | 0,30 | 1,9 | 95 | 3 | CVPG 15,8 | 0,076 | 10% | 14,2 | 17,4 | 95 | | |
| (177) MINDRAY | 15,9 | 0,73 | 4,6 | 14 | 0 | CVPG 15,9 | 0,48 | 10% | 14,3 | 17,5 | 14 | | |
| (179) Siemens | 15,3 | 0,63 | 4,1 | 13 | 0 | CVPG 15,3 | 0,43 | 10% | 13,7 | 16,9 | 13 | | |
| Other | | | | 8 | 0 | | | | | | 0 | | |
| | | | | | | 2x 46, 4x 157, 1x 204, 1x 205 | | | | | | | |
| **(157) MPV** [fL] | | | | 146 | | | | | | | 136 | 132 | 97% |
| Samples and groups | | | | | | | | | | | | | |
| **Sample A** | 9,79 | 0,60 | 6,2 | 146 | | | | | | | 136 | 132 | 97% |
| (1) Abbott | 5,87 | 1,2 | 21 | 9 | 0 | CVPG 5,87 | 1,5 | 18% | 4,81 | 6,93 | 9 | | |
| (12) Beckman Coulter | 8,25 | 0,52 | 6,3 | 6 | 0 | CVPG 8,25 | 0,72 | 18% | 6,76 | 9,74 | 6 | | |
| (63) Sysmex | 10,0 | 0,33 | 3,3 | 98 | 0 | CVPG 10 | 0,081 | 18% | 8,2 | 11,8 | 98 | | |
| (177) MINDRAY | 9,47 | 0,63 | 6,6 | 14 | 0 | CVPG 9,47 | 0,41 | 18% | 7,76 | 11,2 | 14 | | |
| (179) Siemens | 9,85 | 0,37 | 3,8 | 9 | 0 | CVPG 9,85 | 0,46 | 18% | 8,07 | 11,7 | 9 | | |
| Other | | | | 10 | 0 | | | | | | 0 | | |
| | | | | | | 2x 703, 2x 46, 4x 157, 1x 204, 1x 205 | | | | | | | |
| **Sample B** | 11,1 | 0,78 | 7,0 | 146 | | | | | | | 136 | 133 | 98% |

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Filter: minimal size of the groups n = 5

## EQA round: KO5/20 - Blood Count

Deadline: 11.09.2020

| Test | [unit] | RoM | SD | CV [%] | $N_{tot}$ | $N_{out}$ | Comparability | AV | $U_{AV}$ | $D_{max}$ | LL | UL | $N_{eva}$ | $N_{suc}$ | $S_{rel}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **(157) MPV** | [fL] | | | | 146 | | | | | | | | 136 | 132 | 97% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample B** | | 11,1 | 0,78 | 7,0 | 146 | | | | | | | | 136 | 133 | 98% |
| (1) Abbott | | 7,18 | 0,50 | 7,0 | 9 | 0 | CVPG | 7,18 | 0,62 | 18% | 5,88 | 8,48 | 9 | | |
| (12) Beckman Coulter | | 9,65 | 0,52 | 5,4 | 6 | 0 | CVPG | 9,65 | 0,72 | 18% | 7,91 | 11,4 | 6 | | |
| (63) Sysmex | | 11,4 | 0,38 | 3,3 | 98 | 0 | CVPG | 11,4 | 0,094 | 18% | 9,34 | 13,5 | 98 | | |
| (177) MINDRAY | | 11,0 | 0,95 | 8,7 | 14 | 0 | CVPG | 11 | 0,62 | 18% | 9,02 | 13 | 14 | | |
| (179) Siemens | | 10,6 | 0,52 | 4,9 | 9 | 0 | CVPG | 10,6 | 0,64 | 18% | 8,69 | 12,6 | 9 | | |
| Other | | | | | 10 | 0 | 2x 703, 2x 46, 4x 157, 1x 204, 1x 205 | | | | | | 0 | | |
| **(158) PDW [%]** | [%] | | | | 23 | | | | | | | | 13 | 11 | 85% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample A** | | 30,5 | 19 | 62 | 23 | | | | | | | | 13 | 13 | 100% |
| (12) Beckman Coulter | | 17,2 | 0,15 | 0,86 | 6 | 0 | CVPG | 17,2 | 0,21 | 15% | 14,6 | 19,8 | 6 | | |
| (179) Siemens | | 51,9 | 5,5 | 11 | 7 | 0 | CVPG | 51,9 | 5,3 | 15% | 44,1 | 59,7 | 7 | | |
| Other | | | | | 10 | 0 | 2x 703, 2x 46, 4x 157, 1x 204, 1x 205 | | | | | | 0 | | |
| **Sample B** | | 29,3 | 19 | 63 | 23 | | | | | | | | 13 | 11 | 85% |
| (12) Beckman Coulter | | 17,4 | 0,15 | 0,85 | 6 | 0 | CVPG | 17,4 | 0,21 | 15% | 14,7 | 20,1 | 6 | | |
| (179) Siemens | | 55,3 | 1,6 | 2,8 | 7 | 2 | CVPG | 55,3 | 4,4 | 15% | 47 | 63,6 | 7 | | |
| Other | | | | | 10 | 0 | 2x 703, 2x 46, 4x 157, 1x 204, 1x 205 | | | | | | 0 | | |
| **(165) PDW [fL]** | [fL] | | | | 96 | | | | | | | | 96 | 92 | 96% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample A** | | 11,5 | 0,66 | 5,7 | 96 | | | | | | | | 96 | 92 | 96% |
| (63) Sysmex | | 11,5 | 0,66 | 5,7 | 96 | 0 | CVPG | 11,5 | 0,16 | 15% | 9,77 | 13,3 | 96 | | |
| **Sample B** | | 14,6 | 0,92 | 6,3 | 96 | | | | | | | | 96 | 94 | 98% |
| (63) Sysmex | | 14,6 | 0,92 | 6,3 | 96 | 0 | CVPG | 14,6 | 0,23 | 15% | 12,4 | 16,8 | 96 | | |
| **(166) PDW [-]** | [-] | | | | 18 | | | | | | | | 18 | 18 | 100% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample A** | | 17,3 | 1,7 | 9,9 | 18 | | | | | | | | 18 | 18 | 100% |
| (1) Abbott | | 19,3 | 0,74 | 3,8 | 6 | 0 | CVPG | 19,3 | 1,0 | 15% | 16,4 | 22,2 | 6 | | |
| (177) MINDRAY | | 16,2 | 0,26 | 1,6 | 12 | 0 | CVPG | 16,2 | 0,18 | 15% | 13,7 | 18,7 | 12 | | |
| **Sample B** | | 18,1 | 2,3 | 13 | 18 | | | | | | | | 18 | 18 | 100% |
| (1) Abbott | | 20,8 | 0,67 | 3,2 | 6 | 0 | CVPG | 20,8 | 0,93 | 15% | 17,6 | 24 | 6 | | |
| (177) MINDRAY | | 16,6 | 0,43 | 2,6 | 12 | 0 | CVPG | 16,6 | 0,31 | 15% | 14,1 | 19,1 | 12 | | |
| **(160) Neutrophiles** | [·10(exp9)/L] | | | | 121 | | | | | | | | 121 | 107 | 88% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample A** | | 3,12 | 0,15 | 4,9 | 121 | | CVP | 3,12 | 0,034 | 25% | 2,34 | 3,9 | 121 | 114 | 94% |
| All results | | 3,12 | 0,15 | 4,9 | 121 | 0 | | | | | | | 121 | | |
| **Sample B** | | 3,29 | 0,19 | 5,6 | 121 | | CVP | 3,29 | 0,041 | 25% | 2,46 | 4,12 | 121 | 113 | 93% |
| All results | | 3,29 | 0,19 | 5,6 | 121 | 1 | | | | | | | 121 | | |
| **(161) Lymphocytes** | [·10(exp9)/L] | | | | 121 | | | | | | | | 121 | 109 | 90% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample A** | | 1,93 | 0,10 | 5,3 | 121 | | CVP | 1,93 | 0,023 | 25% | 1,44 | 2,42 | 121 | 115 | 95% |
| All results | | 1,93 | 0,10 | 5,3 | 121 | 0 | | | | | | | 121 | | |
| **Sample B** | | 16,4 | 1,1 | 6,6 | 121 | | CVP | 16,4 | 0,24 | 25% | 12,3 | 20,5 | 121 | 115 | 95% |
| All results | | 16,4 | 1,1 | 6,6 | 121 | 0 | | | | | | | 121 | | |
| **(162) Monocytes** | [·10(exp9)/L] | | | | 120 | | | | | | | | 120 | 108 | 90% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample A** | | 0,602 | 0,078 | 13 | 120 | | CVP | 0,602 | 0,017 | 50% | 0,301 | 0,903 | 120 | 116 | 97% |
| All results | | 0,602 | 0,078 | 13 | 120 | 0 | | | | | | | 120 | | |
| **Sample B** | | 0,572 | 0,15 | 27 | 120 | | CVP | 0,572 | 0,034 | asym. | 0 | 0,858 | 120 | 111 | 93% |
| All results | | 0,572 | 0,15 | 27 | 120 | 0 | | | | | | | 120 | | |
| **(163) Eosinophils** | [·10(exp9)/L] | | | | 120 | | | | | | | | 120 | 119 | 99% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample A** | | 0,195 | 0,019 | 9,8 | 120 | | CVP | 0,195 | ,0043 | 50% | 0,097 | 0,293 | 120 | 119 | 99% |
| All results | | 0,195 | 0,019 | 9,8 | 120 | 0 | | | | | | | 120 | | |
| **Sample B** | | 0,127 | 0,017 | 13 | 120 | | CVP | 0,127 | ,0038 | asym. | 0 | 0,612 | 120 | 120 | 100% |
| All results | | 0,127 | 0,017 | 13 | 120 | 0 | | | | | | | 120 | | |
| **(164) Basophiles** | [·10(exp9)/L] | | | | 120 | | | | | | | | 120 | 120 | 100% |
| Samples and groups | | | | | | | | | | | | | | | |
| **Sample A** | | 0,047 | 0,025 | 52 | 120 | | CVP | 0,047 | ,0055 | asym. | 0 | 0,177 | 120 | 120 | 100% |
| All results | | 0,047 | 0,025 | 52 | 120 | 0 | | | | | | | 120 | | |
| **Sample B** | | 0,088 | 0,033 | 38 | 120 | | CVP | 0,088 | ,0074 | asym. | 0 | 0,612 | 120 | 120 | 100% |
| All results | | 0,088 | 0,033 | 38 | 120 | 0 | | | | | | | 120 | | |



End of report

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