

Summary statistics - quantitative results

(Groups: measurement principle)

Filter: Slovakia, minimal size of groups n = 5

EQA round: AM1/18 - Basic Clinical Chemistry - Urine

Dead line: 13.04.2018

| | | |
|------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------|
| RoM = robust average | AV = assigned value | Dmax = acceptable percent difference |
| SD = standard deviation | CRV = certified reference value | LL = lower limit |
| CV = coefficient of variation | RV = reference value | UL = upper limit |
| Ntot = total number of participants | CVE = consensus value from experts | Neva = number of evaluated participants |
| Nout = number of results excluded before calculation | CVP = consensus value from all participants | Nsuc = number of successful participants |
| | CVPG = consensus value from participants groups | Srel = success (relative) |
| | U _{AV} = expanded uncertainty of the assigned value (k = 2) | |

| Test | [unit] | Comparability | | | | | | | | | | Traceability | | | | | | | | | | |
|--------------------------|----------|---------------|------|--------|------------------|------------------|------|-----------------|------------------|------|------|------------------|------------------|------------------|----|-----------------|------------------|----|----|------------------|------------------|------------------|
| | | RoM | SD | CV [%] | N _{tot} | N _{out} | AV | U _{AV} | D _{max} | LL | UL | N _{eva} | N _{suc} | S _{rel} | AV | U _{AV} | D _{max} | LL | UL | N _{eva} | N _{suc} | S _{rel} |
| (61) Sodium | | | | | 42 | | | | | | | 42 | 42 | 100% | | | | | | | | 0 |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 76,9 | 1,4 | 1,8 | 42 | CVP | 77,4 | 0,22 | 11% | 68,8 | 86 | 42 | 42 | 100% | | | | | | | | 0 |
| (2) Indirect ISE | | 77,0 | 1,4 | 1,8 | 40 | | | | | | | 40 | | | | | | | | | | |
| Other | | | | | 2 | | | | | | | 2 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 173 | 2,3 | 1,3 | 42 | CVP | 173 | 0,36 | 11% | 153 | 193 | 42 | 42 | 100% | | | | | | | | 0 |
| (2) Indirect ISE | | 173 | 2,4 | 1,4 | 40 | | | | | | | 40 | | | | | | | | | | |
| Other | | | | | 2 | | | | | | | 2 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| (62) Potassium | | | | | 42 | | | | | | | 42 | 41 | 98% | | | | | | | | 0 |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 30,8 | 1,1 | 3,5 | 42 | CVP | 30,6 | 0,13 | 15% | 26 | 35,2 | 42 | 41 | 98% | | | | | | | | 0 |
| (2) Indirect ISE | | 30,9 | 1,1 | 3,5 | 40 | | | | | | | 40 | | | | | | | | | | |
| Other | | | | | 2 | | | | | | | 2 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 69,8 | 2,7 | 3,9 | 42 | CVP | 69 | 0,34 | 15% | 58,6 | 79,4 | 42 | 42 | 100% | | | | | | | | 0 |
| (2) Indirect ISE | | 69,9 | 2,8 | 4,0 | 40 | | | | | | | 40 | | | | | | | | | | |
| Other | | | | | 2 | | | | | | | 2 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| (63) Chloride | | | | | 42 | | | | | | | 42 | 42 | 100% | | | | | | | | 0 |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 97,1 | 3,2 | 3,3 | 42 | CVP | 96,8 | 0,59 | 14% | 83,2 | 111 | 42 | 42 | 100% | | | | | | | | 0 |
| (3) Indirect ISE | | 97,7 | 2,7 | 2,7 | 39 | | | | | | | 39 | | | | | | | | | | |
| Other | | | | | 3 | | | | | | | 3 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 184 | 4,3 | 2,3 | 42 | CVP | 183 | 0,62 | 14% | 157 | 209 | 42 | 42 | 100% | | | | | | | | 0 |
| (3) Indirect ISE | | 185 | 3,9 | 2,1 | 39 | | | | | | | 39 | | | | | | | | | | |
| Other | | | | | 3 | | | | | | | 3 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| (64) Calcium | | | | | 42 | | | | | | | 42 | 41 | 98% | | | | | | | | 0 |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 1,61 | 0,06 | 4,2 | 42 | CVP | 1,62 | 0,092 | 18% | 1,32 | 1,92 | 42 | 41 | 98% | | | | | | | | 0 |
| (2) Phot. with o-cresol. | | 1,62 | 0,08 | 5,0 | 7 | | | | | | | 7 | | | | | | | | | | |
| (3) Phot. with arsenazo | | 1,60 | 0,07 | 4,4 | 29 | | | | | | | 29 | | | | | | | | | | |
| (4) Complex Ca-NM-BAPTA | | 1,66 | 0,03 | 1,8 | 6 | | | | | | | 6 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 2,38 | 0,09 | 3,8 | 42 | CVP | 2,39 | 0,013 | 18% | 1,95 | 2,83 | 42 | 41 | 98% | | | | | | | | 0 |
| (2) Phot. with o-cresol. | | 2,38 | 0,03 | 1,6 | 7 | | | | | | | 7 | | | | | | | | | | |
| (3) Phot. with arsenazo | | 2,38 | 0,11 | 4,4 | 29 | | | | | | | 29 | | | | | | | | | | |
| (4) Complex Ca-NM-BAPTA | | 2,42 | 0,02 | 0,92 | 6 | | | | | | | 6 | | | | | | | | | | |

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| Test | [unit] | Comparability | | | | | Traceability | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------|---------------|------|--------|------------------|------------------|--------------|-----------------|------------------|------|------|------------------|------------------|------------------|-------|-----------------|------------------|-----|------|------------------|------------------|------------------|-----|--|
| | | RoM | SD | CV [%] | N _{tot} | N _{out} | AV | U _{AV} | D _{max} | LL | UL | N _{eva} | N _{suc} | S _{rel} | AV | U _{AV} | D _{max} | LL | UL | N _{eva} | N _{suc} | S _{rel} | | |
| (73) Magnesium | | | | | 40 | | | | | | | 40 | 39 | 98% | | | | | | | 0 | | | |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 1,63 | 0,11 | 6,5 | 40 | CVP | 1,66 | 0,014 | 20% | 1,32 | 2 | 40 | 39 | 98% | | | | | | | 0 | | | |
| (2) Photometry with coloured dyes | | 1,62 | 0,11 | 6,5 | 39 | | | | | | | 39 | | | | | | | | | | | | |
| Other | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 3,72 | 0,17 | 4,7 | 40 | CVP | 3,75 | 0,027 | 20% | 3 | 4,5 | 40 | 39 | 98% | | | | | | | 0 | | | |
| (2) Photometry with coloured dyes | | 3,71 | 0,18 | 4,7 | 39 | | | | | | | 39 | | | | | | | | | | | | |
| Other | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| (65) Inorganic phosphate | | | | | 42 | | | | | | | 42 | 42 | 100% | | | | | | | 0 | | | |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 8,37 | 0,43 | 5,2 | 42 | CVP | 8,42 | 0,059 | 18% | 6,9 | 9,94 | 42 | 42 | 100% | | | | | | | 0 | | | |
| (1) UV-molybdate method | | 8,37 | 0,44 | 5,3 | 41 | | | | | | | 41 | | | | | | | | | | | | |
| Other | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 16,7 | 0,62 | 3,7 | 42 | CVP | 16,8 | 0,10 | 18% | 13,7 | 19,9 | 42 | 42 | 100% | | | | | | | 0 | | | |
| (1) UV-molybdate method | | 16,7 | 0,64 | 3,8 | 41 | | | | | | | 41 | | | | | | | | | | | | |
| Other | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| (66) Osmolality | | | | | 19 | | | | | | | 19 | 17 | 89% | | | | | | | 0 | | | |
| Samples and groups | [mmol/kg] | | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 432 | 7,2 | 1,7 | 19 | CVP | 433 | 0,93 | 4% | 415 | 451 | 19 | 17 | 89% | | | | | | | 0 | | | |
| (1) Osmometer | | 434 | 5,8 | 1,3 | 17 | | | | | | | 17 | | | | | | | | | | | | |
| Other | | | | | 2 | | | | | | | 2 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 790 | 11 | 1,4 | 19 | CVP | 792 | 1,7 | 4% | 760 | 824 | 19 | 17 | 89% | | | | | | | 0 | | | |
| (1) Osmometer | | 792 | 8,5 | 1,1 | 17 | | | | | | | 17 | | | | | | | | | | | | |
| Other | | | | | 2 | | | | | | | 2 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| (67) Urea | | | | | 42 | | | | | | | 42 | 42 | 100% | | | | | | | 0 | | | |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 145 | 4,7 | 3,2 | 42 | CVP | 147 | 1,1 | 17% | 122 | 172 | 42 | 42 | 100% | | | | | | | 0 | | | |
| (1) UV enzymatic m.(GMD) | | 144 | 4,8 | 3,3 | 41 | | | | | | | 41 | | | | | | | | | | | | |
| Other | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 245 | 7,1 | 2,9 | 42 | CVP | 249 | 1,7 | 17% | 206 | 292 | 42 | 42 | 100% | | | | | | | 0 | | | |
| (1) UV enzymatic m.(GMD) | | 245 | 7,1 | 2,9 | 41 | | | | | | | 41 | | | | | | | | | | | | |
| Other | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| (68) Creatinine | | | | | 42 | | | | | | | 0 | | | | | | | | | 42 | 41 | 98% | |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 5,31 | 0,29 | 5,5 | 42 | | | | | | | 0 | | RV | 5,32 | 0,100 | 21% | 4,2 | 6,44 | | 42 | 41 | 98% | |
| (2) Jaffé without depro. | | 5,27 | 0,30 | 5,7 | 26 | | | | | | | | | | | | | | | | 26 | | | |
| (3) Enzyme | | 5,37 | 0,28 | 5,1 | 16 | | | | | | | | | | | | | | | | 16 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 12,3 | 0,69 | 5,6 | 42 | | | | | | | 0 | | RV | 12,16 | 0,41 | 21% | 9,6 | 14,8 | | 42 | 41 | 98% | |
| (2) Jaffé without depro. | | 12,2 | 0,73 | 6,0 | 26 | | | | | | | | | | | | | | | | 26 | | | |
| (3) Enzyme | | 12,5 | 0,57 | 4,6 | 16 | | | | | | | | | | | | | | | | 16 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

Summary statistics - quantitative results

(Groups: measurement principle)

Filter: Slovakia, minimal size of groups n = 5

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| Test | [unit] | Comparability | | | | | Traceability | | | | | | | | | | | | | | | | |
|----------------------------------------------------|----------|---------------|------|--------|------------------|------------------|--------------|-----------------|------------------|-------|-------|------------------|------------------|------------------|----|-----------------|------------------|----|----|------------------|------------------|------------------|---|
| | | RoM | SD | CV [%] | N _{tot} | N _{out} | AV | U _{AV} | D _{max} | LL | UL | N _{eva} | N _{suc} | S _{rel} | AV | U _{AV} | D _{max} | LL | UL | N _{eva} | N _{suc} | S _{rel} | |
| (69) Uric acid | | | | | 41 | | | | | | | 41 | 41 | 100% | | | | | | | | | 0 |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 0,585 | 0,04 | 7,7 | 41 | CVP | 0,575 | ,0066 | 23% | 0,442 | 0,708 | 41 | 41 | 100% | | | | | | | | | 0 |
| (2) Enzyme-photomet. m. | | 0,585 | 0,04 | 7,7 | 41 | 0 | | | | | | 41 | | | | | | | | | | | |
| Sample B | | 1,04 | 0,06 | 5,8 | 41 | CVP | 1,02 | ,0089 | 23% | 0,785 | 1,26 | 41 | 41 | 100% | | | | | | | | | 0 |
| (2) Enzyme-photomet. m. | | 1,04 | 0,06 | 5,8 | 41 | 0 | | | | | | 41 | | | | | | | | | | | |
| (70) Glucose | | | | | 41 | | | | | | | 41 | 38 | 93% | | | | | | | | | 0 |
| Samples and groups | [mmol/L] | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 1,44 | 0,07 | 5,1 | 41 | CVP | 1,44 | 0,011 | 22% | 1,12 | 1,76 | 41 | 38 | 93% | | | | | | | | | 0 |
| (1) GOD photometry | | 1,42 | 0,04 | 3,2 | 14 | 0 | | | | | | 14 | | | | | | | | | | | |
| (3) Method with hexokinase | | 1,45 | 0,07 | 4,8 | 25 | 0 | | | | | | 25 | | | | | | | | | | | |
| Other | | | | | 2 | 0 | | | | | | 2 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 16,2 | 0,55 | 3,4 | 41 | CVP | 16,3 | 0,084 | 22% | 12,7 | 19,9 | 41 | 41 | 100% | | | | | | | | | 0 |
| (1) GOD photometry | | 16,2 | 0,43 | 2,6 | 14 | 0 | | | | | | 14 | | | | | | | | | | | |
| (3) Method with hexokinase | | 16,2 | 0,65 | 4,0 | 25 | 0 | | | | | | 25 | | | | | | | | | | | |
| Other | | | | | 2 | 0 | | | | | | 2 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| (71) Total protein | | | | | 42 | | | | | | | 34 | 34 | 100% | | | | | | | | | 0 |
| Samples and groups | [g/L] | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 0,176 | 0,02 | 13 | 42 | | | | | | | 34 | 34 | 100% | | | | | | | | | 0 |
| (2) Pyrogallol red; (58) Beckman Coulter (Olympus) | | 0,183 | 0,00 | 4,3 | 16 | 0 | CVPG | 0,184 | ,0025 | 30% | 0,128 | 0,24 | 16 | | | | | | | | | | |
| (4) Turbidimetry; (60) Roche | | 0,152 | 0,01 | 11 | 10 | 0 | CVPG | 0,151 | ,0025 | 30% | 0,105 | 0,197 | 10 | | | | | | | | | | |
| Other | | | | | 16 | 0 | | | | | | 8 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 0,578 | 0,06 | 12 | 42 | | | | | | | 34 | 34 | 100% | | | | | | | | | 0 |
| (2) Pyrogallol red; (58) Beckman Coulter (Olympus) | | 0,602 | 0,01 | 3,1 | 16 | 0 | CVPG | 0,608 | ,0068 | 30% | 0,425 | 0,791 | 16 | | | | | | | | | | |
| (4) Turbidimetry; (60) Roche | | 0,485 | 0,01 | 4,0 | 10 | 0 | CVPG | 0,487 | ,0046 | 30% | 0,34 | 0,634 | 10 | | | | | | | | | | |
| Other | | | | | 16 | 0 | | | | | | 8 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| (72) pH | | | | | 9 | | | | | | | 9 | 8 | 89% | | | | | | | | | 0 |
| Samples and groups | [-] | | | | | | | | | | | | | | | | | | | | | | |
| Sample A | | 6,28 | 0,04 | 0,70 | 9 | CVP | 6,26 | 0,047 | 5% | 5,94 | 6,58 | 9 | 8 | 89% | | | | | | | | | 0 |
| (1) Glass electrode | | 6,34 | 0,13 | 2,1 | 8 | 0 | | | | | | 8 | | | | | | | | | | | |
| Other | | | | | 1 | 0 | | | | | | 1 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Sample B | | 6,29 | 0,06 | 1,1 | 9 | CVP | 6,25 | 0,053 | 5% | 5,93 | 6,57 | 9 | 8 | 89% | | | | | | | | | 0 |
| (1) Glass electrode | | 6,35 | 0,16 | 2,5 | 8 | 0 | | | | | | 8 | | | | | | | | | | | |
| Other | | | | | 1 | 0 | | | | | | 1 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

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End of report

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