

## EQA round: E22/26 - Hormones 2

Deadline: 24.4.2026

Setup: groups - M (measurement principle), R (manufacturer of kit); Czech Republic; minimal size of the groups n = 5

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

| Test<br>Sample<br>Group                                     | [unit]   | RoM  | SD   | CV<br>[%] | N <sub>tot</sub> | N <sub>out</sub> | Comparability |   |                  |       |      | N <sub>eva</sub> | N <sub>suc</sub> | S <sub>rel</sub><br>[%] |
|---|----------|------|------|-----------|------------------|------------------|---------------|---|------------------|-------|------|------------------|------------------|-------------------------|
|   |          |      |      |           |                  |                  | AV            | U <sub>AV</sub>                                     | D <sub>max</sub> | LL    | UL   |                  |                  |                         |
| <b>(393) C-peptide</b>                                      | [pmol/L] |      |      |           | 108              |                  |               |   |                  |       |      | 98               | 97               | 99                      |
| <b>Sample A</b>   |          | 488  | 82   | 17        | 108              |                  |               |   |                  |       |      | 98               | 97               | 99                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 475  | 24   | 5,1       | 31               | 0                | CVPG          | 476   | 10               | 20%   | 380  | 572              | 31               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 266  | 16   | 6,1       | 13               | 0                | CVPG          | 267   | 9                | 20%   | 213  | 321              | 13               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 559  | 30   | 5,4       | 39               | 0                | CVPG          | 562   | 12               | 20%   | 449  | 675              | 39               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 464  | 32   | 7         | 15               | 0                | CVPG          | 475   | 27               | 20%   | 380  | 570              | 15               |                         |
| Other   |          |      |      |           | 10               | 0                |               |   |                  |       |      |                  |                  | 0                       |
|   |          |      |      |           |                  |                  |               | 3x 3/25, 4x 4/29, 1x 4/73, 1x 4/140, 1x 4/164       |                  |       |      |                  |                  |                         |
| <b>Sample B</b>   |          | 331  | 62   | 19        | 108              |                  |               |   |                  |       |      | 98               | 98               | 100                     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 321  | 18   | 5,7       | 31               | 0                | CVPG          | 320   | 7,3              | 20%   | 256  | 384              | 31               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 207  | 8,4  | 4         | 13               | 0                | CVPG          | 206   | 4,7              | 20%   | 164  | 248              | 13               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 388  | 16   | 4,1       | 39               | 0                | CVPG          | 390   | 6,6              | 20%   | 312  | 468              | 39               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 310  | 16   | 5,3       | 15               | 0                | CVPG          | 315   | 13               | 20%   | 252  | 378              | 15               |                         |
| Other   |          |      |      |           | 10               | 0                |               |   |                  |       |      |                  |                  | 0                       |
|   |          |      |      |           |                  |                  |               | 3x 3/25, 4x 4/29, 1x 4/73, 1x 4/140, 1x 4/164       |                  |       |      |                  |                  |                         |
| <b>(193) Ferritin</b>                                       | [µg/L]   |      |      |           | 123              |                  |               |   |                  |       |      | 119              | 119              | 100                     |
| <b>Sample A</b>   |          | 43,6 | 8    | 18        | 123              |                  |               |   |                  |       |      | 119              | 119              | 100                     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 43,4 | 2,7  | 6,2       | 38               | 0                | CVPG          | 43,4  | 0,79             | ±16,8 | 26,6 | 60,2             | 38               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 29,2 | 2,6  | 8,9       | 7                | 0                | CVPG          | 29,2  | 0,95             | ±16,8 | 12,4 | 46               | 7                |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 49,9 | 2,8  | 5,6       | 38               | 0                | CVPG          | 51,7  | 0,63             | ±16,8 | 34,9 | 68,5             | 38               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 33,9 | 2,2  | 6,4       | 22               | 0                | CVPG          | 33,4  | 0,57             | ±16,8 | 16,6 | 50,2             | 22               |                         |
| (6) IMT, IMN; (60) Roche                                    |          | 51   | 1,6  | 3,1       | 9                | 0                | CVPG          | 53  | 0,98             | ±16,8 | 36,2 | 69,8             | 9                |                         |
| Other   |          |      |      |           | 9                | 0                |               |   |                  |       |      |                  |                  | 5                       |
|   |          |      |      |           |                  |                  |               | 1x 4/29, 1x 4/73, 1x 4/179, 2x 6/1, 1x 6/5, 3x 6/58 |                  |       |      |                  |                  |                         |
| <b>Sample B</b>   |          | 206  | 38   | 18        | 123              |                  |               |   |                  |       |      | 119              | 119              | 100                     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 239  | 21   | 8,9       | 38               | 0                | CVPG          | 234   | 4,9              | 24%   | 177  | 291              | 38               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 137  | 16   | 12        | 7                | 0                | CVPG          | 135   | 4,5              | 24%   | 102  | 168              | 7                |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 216  | 16   | 7,6       | 38               | 0                | CVPG          | 218   | 2,7              | 24%   | 165  | 271              | 38               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 168  | 17   | 10        | 22               | 0                | CVPG          | 163   | 3,2              | 24%   | 123  | 203              | 22               |                         |
| (6) IMT, IMN; (60) Roche                                    |          | 194  | 8,9  | 4,6       | 9                | 0                | CVPG          | 203   | 3,1              | 24%   | 154  | 252              | 9                |                         |
| Other   |          |      |      |           | 9                | 0                |               |   |                  |       |      |                  |                  | 5                       |
|   |          |      |      |           |                  |                  |               | 1x 4/29, 1x 4/73, 1x 4/179, 2x 6/1, 1x 6/5, 3x 6/58 |                  |       |      |                  |                  |                         |
| <b>(321) FSH</b>  | [U/L]    |      |      |           | 100              |                  |               |   |                  |       |      | 99               | 99               | 100                     |
| <b>Sample A</b>   |          | 15,1 | 1,1  | 7,4       | 100              |                  |               |   |                  |       |      | 99               | 99               | 100                     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 14,5 | 0,59 | 4,1       | 34               | 0                | CVPG          | 14,3  | 0,15             | 15%   | 12,1 | 16,5             | 34               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 16   | 1,2  | 7,3       | 12               | 0                | CVPG          | 15,8  | 0,34             | 15%   | 13,4 | 18,2             | 12               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 14,6 | 0,55 | 3,8       | 31               | 0                | CVPG          | 14,2  | 0,079            | 15%   | 12   | 16,4             | 31               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 16,3 | 0,74 | 4,5       | 16               | 0                | CVPG          | 16,3  | 0,22             | 15%   | 13,8 | 18,8             | 16               |                         |
| Other   |          |      |      |           | 7                | 0                |               |   |                  |       |      |                  |                  | 6                       |
|   |          |      |      |           |                  |                  |               | 3x 3/25, 2x 4/29, 1x 4/73, 1x 4/164                 |                  |       |      |                  |                  |                         |
| <b>Sample B</b>   |          | 14   | 0,92 | 6,6       | 100              |                  |               |   |                  |       |      | 99               | 99               | 100                     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 13,6 | 0,62 | 4,5       | 34               | 0                | CVPG          | 13,5  | 0,16             | 15%   | 11,4 | 15,6             | 34               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 14,7 | 0,91 | 6,2       | 12               | 0                | CVPG          | 14,7  | 0,26             | 15%   | 12,4 | 17               | 12               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 13,7 | 0,62 | 4,5       | 31               | 0                | CVPG          | 13,4  | 0,08             | 15%   | 11,3 | 15,5             | 31               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 14,7 | 0,57 | 3,8       | 16               | 0                | CVPG          | 14,7  | 0,2              | 15%   | 12,4 | 17               | 16               |                         |
| Other   |          |      |      |           | 7                | 0                |               |   |                  |       |      |                  |                  | 6                       |
|   |          |      |      |           |                  |                  |               | 3x 3/25, 2x 4/29, 1x 4/73, 1x 4/164                 |                  |       |      |                  |                  |                         |
| <b>(328) hGH</b>  | [mU/L]   |      |      |           | 27               |                  |               |   |                  |       |      | 24               | 22               | 92                      |
| <b>Sample A</b>   |          | 2,99 | 0,66 | 22        | 27               |                  |               |   |                  |       |      | 24               | 23               | 96                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (29) Siemens (Immulite)  |          | 2,78 | 0,56 | 20        | 6                | 0                | CVPG          | 3   | 0,068            | ±1,28 | 1,72 | 4,28             | 6                |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 3,44 | 0,15 | 4,4       | 12               | 0                | CVPG          | 3,45  | 0,038            | ±1,28 | 2,17 | 4,73             | 12               |                         |

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| Test<br>Sample Group  | [unit]   | RoM  | SD    | CV [%] | N <sub>tot</sub> | N <sub>out</sub> | Comparability  |                 |                  |     |      | N <sub>eva</sub> | N <sub>suc</sub> | S <sub>rel</sub> [%] |
|---|----------|------|-------|--------|------------------|------------------|--|-----------------|------------------|-----|------|------------------|------------------|----------------------|
|   |          |      |       |        |                  |                  | AV   | U <sub>AV</sub> | D <sub>max</sub> | LL  | UL   |                  |                  |                      |
| Other   |          |      |       |        | 9                | 0                | 1x 1/36, 1x 3/25, 2x 4/12, 2x 4/73, 1x 4/164, 2x 4/183           |                 |                  |     |      | 6                |                  |                      |
| <b>Sample B</b>   |          | 39,8 | 3,3   | 8,2    | 27               |                  |  |                 |                  |     |      | 24               | 22               | 92                   |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (29) Siemens (Immulite)  |          | 38,8 | 3,5   | 9      | 6                | 0                | CVPG   | 39,4            | 0,99             | 16% | 33   | 45,8             | 6                |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               | 40       | 2,3  | 5,6   | 12     | 1                |                  | CVPG   | 39,9            | 0,47             | 16% | 33,5 | 46,3             | 12               |                      |
| Other   |          |      |       |        | 9                | 0                | 1x 1/36, 1x 3/25, 2x 4/12, 2x 4/73, 1x 4/164, 2x 4/183           |                 |                  |     |      | 6                |                  |                      |
| <b>(329) IGF-1</b>  | [µg/L]   |      |       |        | 26               |                  |  |                 |                  |     |      | 25               | 23               | 92                   |
| <b>Sample A</b>   |          | 101  | 26    | 26     | 26               |                  |  |                 |                  |     |      | 25               | 24               | 96                   |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 81,2 | 5,5   | 6,8    | 10               | 0                | CVPG   | 78,4            | 0,83             | 22% | 61,1 | 95,7             | 10               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (164) DiaSorin           |          | 124  | 11    | 8,5    | 6                | 0                | CVPG   | 122             | 3,9              | 22% | 95,1 | 149              | 6                |                      |
| Other   |          |      |       |        | 10               | 0                | 1x 1/12, 3x 4/29, 3x 4/73, 3x 4/183                              |                 |                  |     |      | 9                |                  |                      |
| <b>Sample B</b>   |          | 300  | 78    | 26     | 26               |                  |  |                 |                  |     |      | 25               | 23               | 92                   |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 253  | 15    | 5,9    | 10               | 0                | CVPG   | 251             | 4,1              | 22% | 195  | 307              | 10               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (164) DiaSorin           |          | 363  | 42    | 12     | 6                | 0                | CVPG   | 352             | 13               | 22% | 274  | 430              | 6                |                      |
| Other   |          |      |       |        | 10               | 0                | 1x 1/12, 3x 4/29, 3x 4/73, 3x 4/183                              |                 |                  |     |      | 9                |                  |                      |
| <b>(392) IGF-BP3</b>  | [µg/L]   |      |       |        | 12               |                  |  |                 |                  |     |      | 10               | 10               | 100                  |
| <b>Sample A</b>   |          | 3020 | 420   | 14     | 12               |                  |  |                 |                  |     |      | 10               | 10               | 100                  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 3070 | 230   | 7,5    | 5                | 0                | CVPG   | 2980            | 50               | 20% | 2380 | 3580             | 5                |                      |
| Other   |          |      |       |        | 7                | 0                | 1x 1/36, 3x 4/29, 2x 4/73, 1x 4/183                              |                 |                  |     |      | 5                |                  |                      |
| <b>Sample B</b>   |          | 3040 | 480   | 16     | 12               |                  |  |                 |                  |     |      | 10               | 10               | 100                  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 3050 | 290   | 9,5    | 5                | 0                | CVPG   | 2950            | 45               | 20% | 2360 | 3540             | 5                |                      |
| Other   |          |      |       |        | 7                | 0                | 1x 1/36, 3x 4/29, 2x 4/73, 1x 4/183                              |                 |                  |     |      | 5                |                  |                      |
| <b>(325) Insulin</b>  | [mU/L]   |      |       |        | 27               |                  |  |                 |                  |     |      | 23               | 23               | 100                  |
| <b>Sample A</b>   |          | 15,4 | 2,3   | 15     | 27               |                  |  |                 |                  |     |      | 23               | 23               | 100                  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 12,7 | 0,67  | 5,3    | 7                | 0                | CVPG   | 12,6            | 0,18             | 20% | 10   | 15,2             | 7                |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 16,8 | 1     | 6,2    | 8                | 0                | CVPG   | 16,5            | 0,16             | 20% | 13,2 | 19,8             | 8                |                      |
| Other   |          |      |       |        | 12               | 0                | 1x 1/36, 1x 3/25, 3x 4/12, 1x 4/73, 1x 4/140, 4x 4/162, 1x 4/179 |                 |                  |     |      | 8                |                  |                      |
| <b>Sample B</b>   |          | 44,4 | 8,4   | 19     | 27               |                  |  |                 |                  |     |      | 23               | 23               | 100                  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 33,6 | 2,2   | 6,6    | 7                | 0                | CVPG   | 33,4            | 0,4              | 20% | 26,7 | 40,1             | 7                |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 51,2 | 3     | 5,8    | 8                | 0                | CVPG   | 50,2            | 0,47             | 20% | 40,1 | 60,3             | 8                |                      |
| Other   |          |      |       |        | 12               | 0                | 1x 1/36, 1x 3/25, 3x 4/12, 1x 4/73, 1x 4/140, 4x 4/162, 1x 4/179 |                 |                  |     |      | 8                |                  |                      |
| <b>(326) Folate</b>   | [nmol/L] |      |       |        | 133              |                  |  |                 |                  |     |      | 132              | 122              | 92                   |
| <b>Sample A</b>   |          | 48,4 | 5     | 10     | 133              |                  |  |                 |                  |     |      | 132              | 123              | 93                   |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 45,3 | 0,002 | 0      | 42               | 0                | CVPG   | 45,3            | 0,001            | 27% | 33   | 57,6             | 42               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 53,9 | 2,6   | 4,7    | 13               | 0                | CVPG   | 53,2            | 1,3              | 27% | 38,8 | 67,6             | 13               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 45,4 | 0,008 | 0,02   | 55               | 0                | CVPG   | 45,4            | 0,003            | 27% | 33,1 | 57,7             | 55               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 54,4 | 0,052 | 0,1    | 22               | 0                | CVPG   | 54              | 0,39             | 27% | 39,4 | 68,6             | 22               |                      |
| Other   |          |      |       |        | 1                | 0                | 1x 4/73  |                 |                  |     |      | 0                |                  |                      |
| <b>Sample B</b>   |          | 47,6 | 5,5   | 12     | 133              |                  |  |                 |                  |     |      | 132              | 127              | 96                   |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 45,3 | 0,002 | 0      | 42               | 0                | CVPG   | 45,3            | 0,001            | 27% | 33   | 57,6             | 42               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 56,4 | 2,7   | 4,8    | 13               | 0                | CVPG   | 54,8            | 1,5              | 27% | 40   | 69,6             | 13               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 45,2 | 0,44  | 0,98   | 55               | 0                | CVPG   | 45,2            | 0,096            | 27% | 32,9 | 57,5             | 55               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 54,4 | 0,055 | 0,1    | 22               | 0                | CVPG   | 54,3            | 0,22             | 27% | 39,6 | 69               | 22               |                      |
| Other   |          |      |       |        | 1                | 0                | 1x 4/73  |                 |                  |     |      | 0                |                  |                      |
| <b>(320) LH</b>   | [U/L]    |      |       |        | 96               |                  |  |                 |                  |     |      | 95               | 93               | 98                   |
| <b>Sample A</b>   |          | 7,5  | 1,9   | 25     | 96               |                  |  |                 |                  |     |      | 95               | 94               | 99                   |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 5,66 | 0,28  | 4,9    | 33               | 0                | CVPG   | 5,67            | 0,064            | 15% | 4,81 | 6,53             | 33               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter     |          | 7,45 | 0,42  | 5,6    | 11               | 0                | CVPG   | 7,29            | 0,13             | 15% | 6,19 | 8,39             | 11               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche               |          | 9,6  | 0,34  | 3,5    | 29               | 0                | CVPG   | 9,48            | 0,062            | 15% | 8,05 | 11               | 29               |                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica) |          | 7,39 | 0,31  | 4,3    | 16               | 0                | CVPG   | 7,37            | 0,1              | 15% | 6,26 | 8,48             | 16               |                      |
| Other   |          |      |       |        | 7                | 0                | 3x 3/25, 2x 4/29, 1x 4/73, 1x 4/164                              |                 |                  |     |      | 6                |                  |                      |
| <b>Sample B</b>   |          | 3,47 | 0,97  | 28     | 96               |                  |  |                 |                  |     |      | 95               | 93               | 98                   |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott               |          | 2,58 | 0,13  | 5      | 33               | 0                | CVPG   | 2,57            | 0,029            | 15% | 2,18 | 2,96             | 33               |                      |

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| Test<br>Sample Group  | [unit]   | RoM   | SD    | CV [%] | N <sub>tot</sub> | N <sub>out</sub> | Comparability                       |                 |                  |       |       | N <sub>eva</sub> | N <sub>suc</sub> | S <sub>rel</sub> [%] |     |
|---|----------|-------|-------|--------|------------------|------------------|-------------------------------------|-----------------|------------------|-------|-------|------------------|------------------|----------------------|-----|
|   |          |       |       |        |                  |                  | AV                                  | U <sub>AV</sub> | D <sub>max</sub> | LL    | UL    |                  |                  |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter           |          | 3,28  | 0,23  | 7,1    | 11               | 0                | CVPG                                | 3,27            | 0,061            | 15%   | 2,77  | 3,77             | 11               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                     |          | 4,63  | 0,15  | 3,3    | 29               | 0                | CVPG                                | 4,61            | 0,029            | 15%   | 3,91  | 5,31             | 29               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica)       |          | 3,31  | 0,16  | 4,8    | 16               | 0                | CVPG                                | 3,26            | 0,043            | 15%   | 2,77  | 3,75             | 16               |                      |     |
| Other   |          |       |       |        | 7                | 0                |                                     |                 |                  |       |       |                  | 6                |                      |     |
|   |          |       |       |        |                  |                  | 3x 3/25, 2x 4/29, 1x 4/73, 1x 4/164 |                 |                  |       |       |                  |                  |                      |     |
| (407) Parathyryn biointact (PTH 1-84)                             | [pmol/L] |       |       |        | 35               |                  |                                     |                 |                  |       |       |                  | 35               | 33                   | 94  |
| Sample A  |          | 0,672 | 0,12  | 17     | 35               |                  |                                     |                 |                  |       |       |                  | 35               | 33                   | 94  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                     |          | 0,688 | 0,1   | 15     | 32               | 0                | CVPG                                | 0,696           | 0,042 ±0,276     | 0,42  | 0,972 |                  | 32               |                      |     |
| Other   |          |       |       |        | 3                | 0                |                                     |                 |                  |       |       |                  | 3                |                      |     |
|   |          |       |       |        |                  |                  | 3x 4/164                            |                 |                  |       |       |                  |                  |                      |     |
| Sample B  |          | 1,44  | 0,19  | 13     | 35               |                  |                                     |                 |                  |       |       |                  | 35               | 35                   | 100 |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                     |          | 1,46  | 0,16  | 11     | 32               | 0                | CVPG                                | 1,46            | 0,072            | 23%   | 1,12  | 1,8              | 32               |                      |     |
| Other   |          |       |       |        | 3                | 0                |                                     |                 |                  |       |       |                  | 3                |                      |     |
|   |          |       |       |        |                  |                  | 3x 4/164                            |                 |                  |       |       |                  |                  |                      |     |
| (405) Parathyryn intact (PTH)                                     | [pmol/L] |       |       |        | 53               |                  |                                     |                 |                  |       |       |                  | 48               | 46                   | 96  |
| Sample A  |          | 0,46  | 0,14  | 30     | 53               |                  |                                     |                 |                  |       |       |                  | 48               | 46                   | 96  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                     |          | 0,493 | 0,041 | 8,4    | 14               | 0                | CVPG                                | 0,471           | 0,012 ±0,276     | 0,195 | 0,747 |                  | 14               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter           |          | 0,3   | 0,15  | 49     | 7                | 0                | CVPG                                | 0,224           | 0,028 ±0,276     | 0     | 0,5   |                  | 7                |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                     |          | 0,53  | 0,099 | 19     | 15               | 0                | CVPG                                | 0,574           | 0,013 ±0,276     | 0,298 | 0,85  |                  | 15               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica)       |          | 0,5   | 0     | 0      | 12               | 1                | CVPG                                | 0,369           | 0,052 ±0,276     | 0,093 | 0,645 |                  | 12               |                      |     |
| Other   |          |       |       |        | 5                | 0                |                                     |                 |                  |       |       |                  | 0                |                      |     |
|   |          |       |       |        |                  |                  | 1x 3/25, 3x 4/73, 1x 4/999          |                 |                  |       |       |                  |                  |                      |     |
| Sample B  |          | 1,42  | 0,35  | 25     | 53               |                  |                                     |                 |                  |       |       |                  | 48               | 48                   | 100 |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                     |          | 1,84  | 0,12  | 6,3    | 14               | 0                | CVPG                                | 1,77            | 0,032            | 23%   | 1,36  | 2,18             | 14               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter           |          | 1,23  | 0,1   | 8,4    | 7                | 0                | CVPG                                | 1,29            | 0,059            | 23%   | 0,993 | 1,59             | 7                |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                     |          | 1,26  | 0,14  | 11     | 15               | 0                | CVPG                                | 1,28            | 0,016            | 23%   | 0,985 | 1,58             | 15               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica)       |          | 1,15  | 0,078 | 6,8    | 12               | 0                | CVPG                                | 1,15            | 0,034 ±0,276     | 0,874 | 1,43  |                  | 12               |                      |     |
| Other   |          |       |       |        | 5                | 0                |                                     |                 |                  |       |       |                  | 0                |                      |     |
|   |          |       |       |        |                  |                  | 1x 3/25, 3x 4/73, 1x 4/999          |                 |                  |       |       |                  |                  |                      |     |
| (322) Prolactin   | [mU/L]   |       |       |        | 104              |                  |                                     |                 |                  |       |       |                  | 104              | 102                  | 98  |
| Sample A  |          | 173   | 26    | 15     | 104              |                  |                                     |                 |                  |       |       |                  | 104              | 103                  | 99  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                     |          | 176   | 9,6   | 5,5    | 33               | 0                | CVPG                                | 178             | 2,1              | 16%   | 149   | 207              | 33               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter           |          | 158   | 9,6   | 6,1    | 10               | 0                | CVPG                                | 157             | 3,2              | 16%   | 131   | 183              | 10               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                     |          | 194   | 11    | 5,7    | 35               | 0                | CVPG                                | 189             | 1,4              | 16%   | 158   | 220              | 35               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica)       |          | 138   | 4,9   | 3,6    | 17               | 0                | CVPG                                | 138             | 1,6              | 16%   | 115   | 161              | 17               |                      |     |
| Other   |          |       |       |        | 9                | 0                |                                     |                 |                  |       |       |                  | 9                |                      |     |
|   |          |       |       |        |                  |                  | 3x 3/25, 4x 4/29, 1x 4/73, 1x 4/164 |                 |                  |       |       |                  |                  |                      |     |
| Sample B  |          | 389   | 52    | 13     | 104              |                  |                                     |                 |                  |       |       |                  | 104              | 103                  | 99  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                     |          | 412   | 25    | 6,1    | 33               | 0                | CVPG                                | 420             | 4,9              | 16%   | 352   | 488              | 33               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter           |          | 364   | 25    | 6,8    | 10               | 0                | CVPG                                | 365             | 7,5              | 16%   | 306   | 424              | 10               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                     |          | 415   | 23    | 5,6    | 35               | 0                | CVPG                                | 405             | 2,8              | 16%   | 340   | 470              | 35               |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens (Atellica)       |          | 291   | 12    | 4      | 17               | 0                | CVPG                                | 291             | 3                | 16%   | 244   | 338              | 17               |                      |     |
| Other   |          |       |       |        | 9                | 0                |                                     |                 |                  |       |       |                  | 9                |                      |     |
|   |          |       |       |        |                  |                  | 3x 3/25, 4x 4/29, 1x 4/73, 1x 4/164 |                 |                  |       |       |                  |                  |                      |     |
| (390) Renin   | [ng/L]   |       |       |        | 21               |                  |                                     |                 |                  |       |       |                  | 20               | 18                   | 90  |
| Sample A  |          | 54    | 13    | 25     | 21               |                  |                                     |                 |                  |       |       |                  | 20               | 19                   | 95  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (164) DiaSorin                 |          | 42,6  | 4,2   | 9,9    | 9                | 0                | CVPG                                | 43,4            | 0,5              | 20%   | 34,7  | 52,1             | 9                |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (183) Immunodiagnostic Systems |          | 65,6  | 3,1   | 4,7    | 7                | 0                | CVPG                                | 64,3            | 1,3              | 20%   | 51,4  | 77,2             | 7                |                      |     |
| Other   |          |       |       |        | 5                | 0                |                                     |                 |                  |       |       |                  | 4                |                      |     |
|   |          |       |       |        |                  |                  | 2x 1/36, 1x 2/66, 2x 4/73           |                 |                  |       |       |                  |                  |                      |     |
| Sample B  |          | 54,1  | 14    | 25     | 21               |                  |                                     |                 |                  |       |       |                  | 20               | 19                   | 95  |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (164) DiaSorin                 |          | 44,1  | 1,1   | 2,6    | 9                | 0                | CVPG                                | 45,3            | 0,66             | 20%   | 36,2  | 54,4             | 9                |                      |     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (183) Immunodiagnostic Systems |          | 69    | 2,8   | 4,1    | 7                | 0                | CVPG                                | 67,4            | 1                | 20%   | 53,9  | 80,9             | 7                |                      |     |
| Other   |          |       |       |        | 5                | 0                |                                     |                 |                  |       |       |                  | 4                |                      |     |
|   |          |       |       |        |                  |                  | 2x 1/36, 1x 2/66, 2x 4/73           |                 |                  |       |       |                  |                  |                      |     |

## EQA round: E22/26 - Hormones 2

Deadline: 24.4.2026

Setup: groups - M (measurement principle), R (manufacturer of kit); Czech Republic; minimal size of the groups n = 5

| Test<br>Sample<br>Group  | [unit]   | RoM  | SD  | CV<br>[%] | N <sub>tot</sub> | N <sub>out</sub> | Comparability |                 |                  |     |      | N <sub>eva</sub> | N <sub>suc</sub> | S <sub>rel</sub><br>[%] |
|--|----------|------|-----|-----------|------------------|------------------|---------------|-----------------|------------------|-----|------|------------------|------------------|-------------------------|
|  |          |      |     |           |                  |                  | AV            | U <sub>AV</sub> | D <sub>max</sub> | LL  | UL   |                  |                  |                         |
| <b>(394) SHBG</b>  | [nmol/L] |      |     |           | 57               |                  |               |                 |                  |     |      | 57               | 57               | 100                     |
| <b>Sample A</b>  |          | 57,4 | 5,4 | 9,4       | 57               |                  |               |                 |                  |     |      | 57               | 57               | 100                     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                  |          | 58,5 | 4,3 | 7,4       | 17               | 0                | CVPG          | 58,6            | 1,2              | 20% | 46,8 | 70,4             | 17               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman<br>Coulter     |          | 57,6 | 5   | 8,8       | 6                | 0                | CVPG          | 56,3            | 1,6              | 20% | 45   | 67,6             | 6                |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                  |          | 60   | 2,8 | 4,7       | 23               | 0                | CVPG          | 58,5            | 0,5              | 20% | 46,8 | 70,2             | 23               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens<br>(Atellica) |          | 51,8 | 3,3 | 6,3       | 7                | 0                | CVPG          | 52,8            | 0,88             | 20% | 42,2 | 63,4             | 7                |                         |
| Other  |          |      |     |           | 4                | 0                |               |                 |                  |     |      |                  | 4                |                         |
|  |          |      |     |           |                  |                  |               |                 |                  |     |      |                  |                  | 3x 4/29, 1x 4/179       |
| <b>Sample B</b>  |          | 33   | 2,8 | 8,5       | 57               |                  |               |                 |                  |     |      | 57               | 57               | 100                     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                  |          | 34,7 | 1,9 | 5,5       | 17               | 0                | CVPG          | 35              | 0,7              | 20% | 28   | 42               | 17               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman<br>Coulter     |          | 32,7 | 5,3 | 16        | 6                | 0                | CVPG          | 32,7            | 0,84             | 20% | 26,1 | 39,3             | 6                |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                  |          | 33   | 1,7 | 5,2       | 23               | 0                | CVPG          | 32,6            | 0,23             | 20% | 26   | 39,2             | 23               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens<br>(Atellica) |          | 30,4 | 2,2 | 7,1       | 7                | 0                | CVPG          | 31,5            | 0,42             | 20% | 25,2 | 37,8             | 7                |                         |
| Other  |          |      |     |           | 4                | 0                |               |                 |                  |     |      |                  | 4                |                         |
|  |          |      |     |           |                  |                  |               |                 |                  |     |      |                  |                  | 3x 4/29, 1x 4/179       |
| <b>(327) Vitamin B<sub>12</sub></b>                            | [pmol/L] |      |     |           | 114              |                  |               |                 |                  |     |      | 113              | 111              | 98                      |
| <b>Sample A</b>  |          | 244  | 28  | 11        | 114              |                  |               |                 |                  |     |      | 113              | 111              | 98                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                  |          | 246  | 16  | 6,4       | 36               | 0                | CVPG          | 244             | 4                | 20% | 195  | 293              | 36               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman<br>Coulter     |          | 177  | 9,2 | 5,2       | 12               | 0                | CVPG          | 178             | 4,2              | 20% | 142  | 214              | 12               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                  |          | 261  | 19  | 7,1       | 46               | 0                | CVPG          | 263             | 2,3              | 20% | 210  | 316              | 46               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens<br>(Atellica) |          | 231  | 26  | 11        | 18               | 0                | CVPG          | 228             | 6,5              | 20% | 182  | 274              | 18               |                         |
| Other  |          |      |     |           | 2                | 0                |               |                 |                  |     |      |                  | 1                |                         |
|  |          |      |     |           |                  |                  |               |                 |                  |     |      |                  |                  | 1x 4/29, 1x 4/73        |
| <b>Sample B</b>  |          | 249  | 30  | 12        | 114              |                  |               |                 |                  |     |      | 113              | 112              | 99                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                  |          | 244  | 18  | 7,4       | 36               | 0                | CVPG          | 244             | 4,1              | 20% | 195  | 293              | 36               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman<br>Coulter     |          | 188  | 13  | 7,1       | 12               | 0                | CVPG          | 185             | 4,2              | 20% | 148  | 222              | 12               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                  |          | 271  | 16  | 5,8       | 46               | 0                | CVPG          | 274             | 2,4              | 20% | 219  | 329              | 46               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens<br>(Atellica) |          | 240  | 28  | 12        | 18               | 0                | CVPG          | 242             | 6,3              | 20% | 193  | 291              | 18               |                         |
| Other  |          |      |     |           | 2                | 0                |               |                 |                  |     |      |                  | 1                |                         |
|  |          |      |     |           |                  |                  |               |                 |                  |     |      |                  |                  | 1x 4/29, 1x 4/73        |
| <b>(319) Vitamin B<sub>12</sub> (active)</b>                   | [pmol/L] |      |     |           | 41               |                  |               |                 |                  |     |      | 41               | 39               | 95                      |
| <b>Sample A</b>  |          | 80,8 | 14  | 17        | 41               |                  |               |                 |                  |     |      | 41               | 41               | 100                     |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                  |          | 80,1 | 5,9 | 7,3       | 22               | 0                | CVPG          | 79,9            | 2,7              | 20% | 63,9 | 95,9             | 22               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                  |          | 67,1 | 5,7 | 8,6       | 11               | 0                | CVPG          | 67              | 2,8              | 20% | 53,6 | 80,4             | 11               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens<br>(Atellica) |          | 106  | 6,4 | 6         | 8                | 0                | CVPG          | 106             | 4,9              | 20% | 84,8 | 128              | 8                |                         |
| <b>Sample B</b>  |          | 93,4 | 16  | 17        | 41               |                  |               |                 |                  |     |      | 41               | 39               | 95                      |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott                  |          | 97,5 | 9,7 | 9,9       | 22               | 0                | CVPG          | 97,9            | 4,5              | 20% | 78,3 | 118              | 22               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche                  |          | 75,4 | 4,5 | 5,9       | 11               | 0                | CVPG          | 75,3            | 2,6              | 20% | 60,2 | 90,4             | 11               |                         |
| (4) LIA (CLIA, CMIA, ECLIA, LOCI); (162) Siemens<br>(Atellica) |          | 108  | 7,6 | 7         | 8                | 0                | CVPG          | 108             | 5,8              | 20% | 86,4 | 130              | 8                |                         |