# Summary statistics - quantitative results

## EQA round: BM2/26 - Bone Markers

Deadline: 23.10.2026

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

RoM = robust average
SD = standard deviation
CV = coefficient of variation
$N_{tot}$ = total number of the results
$N_{out}$ = number of the results removed before calculation
AV = assigned value
CVPG = consensus of the participants' groups
$U_{AV}$ = expanded uncertainty of the assigned value (k = 2)
$D_{max}$ = acceptable difference
LL = lower limit
UL = upper limit
$N_{eva}$ = number of the results assessed
$N_{suc}$ = number of successful results
$S_{rel}$ = relative success

| Test / Sample / Group | [unit] | RoM | SD | CV [%] | $N_{tot}$ | $N_{out}$ | Comparability | AV | $U_{AV}$ | $D_{max}$ | LL | UL | $N_{eva}$ | $N_{suc}$ | $S_{rel}$ [%] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (435) **25-hydroxyvitamin D** | [nmol/L] | | | | 28 | | | | | | | | 26 | 24 | 92 |
| **Sample A** | | 155 | 28 | 18 | 28 | | | | | | | | 26 | 24 | 92 |
| (1) Abbott | | 140 | 5,4 | 3,8 | 7 | 1 | CVPG | 140 | 2,6 | 25% | 105 | 175 | 7 | | |
| (60) Roche | | 149 | 16 | 11 | 12 | 0 | CVPG | 149 | 2,4 | 25% | 111 | 187 | 12 | | |
| Other | | | | | 9 | 0 | | | | | | | 7 | | |
| | | | | | | | 4x 12, 1x 73, 3x 162, 1x 998 | | | | | | | | |
| **Sample B** | | 83,3 | 30 | 36 | 28 | | | | | | | | 26 | 24 | 92 |
| (1) Abbott | | 62,2 | 3 | 4,8 | 7 | 0 | CVPG | 62,9 | 1 | 25% | 47,1 | 78,7 | 7 | | |
| (60) Roche | | 75,7 | 8,9 | 12 | 12 | 0 | CVPG | 72,6 | 1,4 | 25% | 54,4 | 90,8 | 12 | | |
| Other | | | | | 9 | 0 | | | | | | | 7 | | |
| | | | | | | | 4x 12, 1x 73, 3x 162, 1x 998 | | | | | | | | |
| (434) **Osteocalcin** | [µg/L] | | | | 19 | | | | | | | | 18 | 16 | 89 |
| **Sample A** | | 93,9 | 7 | 7,5 | 19 | | | | | | | | 18 | 16 | 89 |
| (60) Roche | | 95,6 | 5,6 | 5,9 | 15 | 0 | CVPG | 96 | 1,5 | 13% | 83,5 | 109 | 15 | | |
| Other | | | | | 4 | 0 | | | | | | | 3 | | |
| | | | | | | | 3x 73, 1x 164 | | | | | | | | |
| **Sample B** | | 18,8 | 1,5 | 7,9 | 19 | | | | | | | | 18 | 16 | 89 |
| (60) Roche | | 19,3 | 1,1 | 5,7 | 15 | 0 | CVPG | 19,1 | 0,28 | 13% | 16,6 | 21,6 | 15 | | |
| Other | | | | | 4 | 0 | | | | | | | 3 | | |
| | | | | | | | 3x 73, 1x 164 | | | | | | | | |
| (433) **PINP** | [µg/L] | | | | 14 | | | | | | | | 14 | 12 | 86 |
| **Sample A** | | 199 | 20 | 10 | 14 | | | | | | | | 14 | 13 | 93 |
| (60) Roche | | 193 | 15 | 7,9 | 11 | 0 | CVPG | 198 | 3,1 | 20% | 158 | 238 | 11 | | |
| Other | | | | | 3 | 0 | | | | | | | 3 | | |
| | | | | | | | 3x 73 | | | | | | | | |
| **Sample B** | | 30,8 | 8 | 26 | 14 | | | | | | | | 14 | 12 | 86 |
| (60) Roche | | 27,3 | 1,9 | 7 | 11 | 0 | CVPG | 27,4 | 0,54 | 20% | 21,9 | 32,9 | 11 | | |
| Other | | | | | 3 | 0 | | | | | | | 3 | | |
| | | | | | | | 3x 73 | | | | | | | | |
| (436) **Parathyrin biointact (PTH 1-84)** | [pmol/L] | | | | 2 | | | | | | | | 2 | 2 | 100 |
| **Sample A** | | 11,5 | 0,54 | 4,7 | 2 | | | | | | | | 2 | 2 | 100 |
| Other | | | | | 2 | 0 | | | | | | | 2 | | |
| | | | | | | | 1x 60, 1x 164 | | | | | | | | |
| **Sample B** | | 3,47 | 0,48 | 14 | 2 | | | | | | | | 2 | 2 | 100 |
| Other | | | | | 2 | 0 | | | | | | | 2 | | |
| | | | | | | | 1x 60, 1x 164 | | | | | | | | |
| (431) **Parathyrin intact (PTH)** | [pmol/L] | | | | 27 | | | | | | | | 25 | 23 | 92 |
| **Sample A** | | 21,4 | 8,2 | 38 | 27 | | | | | | | | 25 | 24 | 96 |
| (1) Abbott | | 34,4 | 4,5 | 13 | 5 | 0 | CVPG | 34,3 | 1,6 | 23% | 26,4 | 42,2 | 5 | | |
| (12) Beckman Coulter | | 12 | 0,85 | 7,1 | 5 | 0 | CVPG | 13,7 | 1,4 | 23% | 10,5 | 16,9 | 5 | | |
| (60) Roche | | 19,9 | 2,4 | 12 | 12 | 0 | CVPG | 20,1 | 0,68 | 23% | 15,4 | 24,8 | 12 | | |
| Other | | | | | 5 | 0 | | | | | | | 3 | | |
| | | | | | | | 1x 73, 3x 162, 1x 179 | | | | | | | | |
| **Sample B** | | 6,47 | 2,7 | 41 | 27 | | | | | | | | 25 | 23 | 92 |
| (1) Abbott | | 10,1 | 0,94 | 9,3 | 5 | 0 | CVPG | 10,4 | 0,43 | 23% | 8 | 12,8 | 5 | | |
| (12) Beckman Coulter | | 3,3 | 0,16 | 4,7 | 5 | 0 | CVPG | 3,85 | 0,44 | 23% | 2,96 | 4,74 | 5 | | |
| (60) Roche | | 5,87 | 0,95 | 16 | 12 | 0 | CVPG | 5,81 | 0,3 | 23% | 4,47 | 7,15 | 12 | | |
| Other | | | | | 5 | 0 | | | | | | | 3 | | |
| | | | | | | | 1x 73, 3x 162, 1x 179 | | | | | | | | |
| (432) **Collagen telopeptide β-CTX-I** | [ng/L] | | | | 20 | | | | | | | | 20 | 14 | 70 |
| **Sample A** | | 653 | 96 | 15 | 20 | | | | | | | | 20 | 17 | 85 |
| (60) Roche | | 672 | 72 | 11 | 17 | 0 | CVPG | 690 | 13 | 17% | 572 | 808 | 17 | | |
| Other | | | | | 3 | 1 | | | | | | | 3 | | |
| | | | | | | | 3x 73 | | | | | | | | |
| **Sample B** | | 278 | 51 | 18 | 20 | | | | | | | | 20 | 15 | 75 |
| (60) Roche | | 287 | 42 | 15 | 17 | 0 | CVPG | 276 | 6,2 | 17% | 229 | 323 | 17 | | |
| Other | | | | | 3 | 1 | | | | | | | 3 | | |
| | | | | | | | 3x 73 | | | | | | | | |