

## EQA round: E12/23 - Hormones 1

Deadline: 2.5.2023

Setup: groups - measurement principle, manufacturer of kit; Slovakia; 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 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			
<b>(306) 17-OH-progesterone</b>	[nmol/L]				4							3	3	100
<b>Sample A</b>												3	3	100
Other					4	0	1x 1/36, 1x 1/999, 1x 2/66, 1x 4/183					3		
<b>Sample B</b>												3	3	100
Other					4	0	1x 1/36, 1x 1/999, 1x 2/66, 1x 4/183					3		
<b>(303) Aldosterone</b>	[nmol/L]				4							4	4	100
<b>Sample A</b>												4	4	100
Other					4	0	3x 1/36, 1x 4/164					4		
<b>Sample B</b>												4	4	100
Other					4	0	3x 1/36, 1x 4/164					4		
<b>(307) DHEA-S</b>	[µmol/L]				9							9	9	100
<b>Sample A</b>												9	9	100
Other					9	0	2x 4/1, 2x 4/12, 4x 4/60, 1x 4/179					9		
<b>Sample B</b>												9	9	100
Other					9	0	2x 4/1, 2x 4/12, 4x 4/60, 1x 4/179					9		
<b>(302) 17-beta-estradiol</b>	[pmol/L]				16							16	15	94
<b>Sample A</b>		701	38	5,4	16							16	16	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		704	51	7,3	5	0	CVPG	726	15	22%	566	886	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		710	20	2,8	6	0	CVPG	718	3,8	22%	560	876	6	
Other					5	0	1x 3/25, 3x 4/1, 1x 4/179					5		
<b>Sample B</b>		344	30	8,8	16							16	15	94
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		326	11	3,2	5	0	CVPG	345	7,3	22%	269	421	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		354	8,9	2,5	6	0	CVPG	352	2,7	22%	274	430	6	
Other					5	0	1x 3/25, 3x 4/1, 1x 4/179					5		
<b>(200) Ferritin</b>	[µg/L]				18							17	17	100
<b>Sample A</b>		387	75	19	18							17	17	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		446	21	4,6	5	0	CVPG	470	6,7	24%	357	583	5	
Other					13	0	2x 4/12, 4x 4/60, 3x 4/179, 3x 6/60, 1x 6/178					12		
<b>Sample B</b>		219	35	16	18							17	17	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		245	13	5,1	5	0	CVPG	259	3,5	24%	196	322	5	
Other					13	0	2x 4/12, 4x 4/60, 3x 4/179, 3x 6/60, 1x 6/178					12		
<b>(301) Cortisol</b>	[nmol/L]				14							14	13	93
<b>Sample A</b>		1000	100	10	14							14	13	93
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		998	82	8,2	5	0	CVPG	954	24	16%	801	1110	5	
Other					9	0	1x 1/36, 2x 4/1, 4x 4/60, 2x 4/179					9		
<b>Sample B</b>		388	45	12	14							14	13	93
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		360	13	3,7	5	0	CVPG	348	7,2	16%	292	404	5	
Other					9	0	1x 1/36, 2x 4/1, 4x 4/60, 2x 4/179					9		
<b>(304) Progesterone</b>	[nmol/L]				17							17	16	94
<b>Sample A</b>		18,9	4,3	23	17							17	16	94
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		22,2	0,89	4	6	0	CVPG	20,9	0,15	20%	16,7	25,1	6	
Other					11	0	1x 3/25, 4x 4/1, 4x 4/12, 2x 4/179					11		
<b>Sample B</b>		33,2	6,9	21	17							17	16	94
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		38,5	2,6	6,7	6	0	CVPG	36,3	0,22	20%	29	43,6	6	
Other					11	0	1x 3/25, 4x 4/1, 4x 4/12, 2x 4/179					11		

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Test 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			
<b>(125) Free T3</b>	[pmol/L]				18							18	17	94
<b>Sample A</b>		32,3	6,4	20	18							18	17	94
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		37,7	1,9	5,1	7	0	CVPG	36,7	0,12	15%	31,1	42,3	7	
Other					11	0							11	
								1x 1/36, 4x 4/1, 4x 4/12, 2x 4/179						
<b>Sample B</b>		4,49	0,52	12	18							18	18	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		4,89	0,32	6,5	7	0	CVPG	4,78	0,022	15%	4,06	5,5	7	
Other					11	0							11	
								1x 1/36, 4x 4/1, 4x 4/12, 2x 4/179						
<b>(124) Free T4</b>	[pmol/L]				23							23	23	100
<b>Sample A</b>		54,8	14	26	23							23	23	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		54,5	1,5	2,8	5	0	CVPG	53,3	0,75	13%	46,3	60,3	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		65,9	3,2	4,9	10	0	CVPG	66,2	0,28	13%	57,5	74,9	10	
Other					8	0							8	
								1x 1/36, 1x 3/25, 4x 4/1, 2x 4/179						
<b>Sample B</b>		14,4	2,2	15	23							23	23	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		12,1	0,68	5,7	5	0	CVPG	12,5	0,2	13%	10,8	14,2	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		16,3	0,74	4,5	10	0	CVPG	16,3	0,062	13%	14,1	18,5	10	
Other					8	0							8	
								1x 1/36, 1x 3/25, 4x 4/1, 2x 4/179						
<b>(305) Testosterone</b>	[nmol/L]				17							17	16	94
<b>Sample A</b>		1,79	0,61	34	17							17	16	94
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		2,34	0,23	10	7	0	CVPG	2,34	0,057	22%	1,82	2,86	7	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		1,4	0,27	19	7	0	CVPG	1,45	0,021	22%	1,13	1,77	7	
Other					3	0							3	
								1x 3/25, 1x 4/1, 1x 4/179						
<b>Sample B</b>		6,11	0,57	9,4	17							17	17	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		5,9	0,88	15	7	0	CVPG	5,84	0,13	22%	4,55	7,13	7	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		6,3	0,47	7,5	7	0	CVPG	6,34	0,049	22%	4,94	7,74	7	
Other					3	0							3	
								1x 3/25, 1x 4/1, 1x 4/179						
<b>(123) TSH</b>	[mU/L]				23							23	22	96
<b>Sample A</b>		1,41	0,15	11	23							23	23	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		1,35	0,025	1,8	6	0	CVPG	1,34	0,015	14%	1,15	1,53	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		1,52	0,055	3,6	10	0	CVPG	1,52	0,006	14%	1,3	1,74	10	
Other					7	0							7	
								1x 3/25, 4x 4/1, 2x 4/179						
<b>Sample B</b>		19,7	2,1	11	23							23	22	96
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		19,1	0,48	2,5	6	0	CVPG	19,1	0,19	14%	16,4	21,8	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		21,1	0,71	3,3	10	0	CVPG	20,9	0,072	14%	17,9	23,9	10	
Other					7	0							7	
								1x 3/25, 4x 4/1, 2x 4/179						