

EQA round: E14/23 - Hormones 1

Deadline: 9.10.2023

Setup: groups - measurement principle, manufacturer of kit; Slovakia; minimal size of the groups n = 5

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

Test Sample Group	[unit]	RoM	SD	CV [%]	N _{tot}	N _{out}	Comparability					N _{eva}	N _{suc}	S _{rel} [%]
							AV	U _{AV}	D _{max}	LL	UL			
(306) 17-OH-progesterone	[nmol/L]				4							3	3	100
Sample A												3	3	100
Other					4	0						3		
							1x 1/36, 1x 1/999, 1x 2/66, 1x 4/183							
Sample B												3	3	100
Other					4	0						3		
							1x 1/36, 1x 1/999, 1x 2/66, 1x 4/183							
(303) Aldosterone	[nmol/L]				4							4	4	100
Sample A												4	4	100
Other					4	0						4		
							3x 1/36, 1x 4/164							
Sample B												4	4	100
Other					4	0						4		
							3x 1/36, 1x 4/164							
(307) DHEA-S	[µmol/L]				12							12	11	92
Sample A		10,9	0,95	8,7	12							12	12	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		11,4	0,42	3,7	6	0	CVPG	11,3	0,12	21%	8,92	13,7	6	
Other					6	0							6	
							2x 4/1, 2x 4/12, 2x 4/179							
Sample B		5,76	0,53	9,1	12							12	11	92
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		6	0,44	7,4	6	0	CVPG	6,06	0,072	21%	4,78	7,34	6	
Other					6	0							6	
							2x 4/1, 2x 4/12, 2x 4/179							
(302) 17-beta-estradiol	[pmol/L]				18							18	18	100
Sample A		383	33	8,7	18							18	18	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		395	33	8,3	8	0	CVPG	400	2,9	22%	312	488	8	
Other					10	0							10	
							1x 3/25, 3x 4/1, 4x 4/12, 2x 4/179							
Sample B		455	28	6,3	18							18	18	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		456	36	7,9	8	0	CVPG	460	3,2	22%	358	562	8	
Other					10	0							10	
							1x 3/25, 3x 4/1, 4x 4/12, 2x 4/179							
(200) Ferritin	[µg/L]				23							21	20	95
Sample A		158	35	22	23							21	21	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		184	13	6,8	5	0	CVPG	177	2,2	24%	134	220	5	
Other					18	0							16	
							4x 4/1, 3x 4/12, 4x 4/179, 1x 6/58, 4x 6/60, 2x 6/178							
Sample B		205	47	23	23							21	20	95
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		229	12	5,3	5	0	CVPG	224	2,3	24%	170	278	5	
Other					18	0							16	
							4x 4/1, 3x 4/12, 4x 4/179, 1x 6/58, 4x 6/60, 2x 6/178							
(301) Cortisol	[nmol/L]				17							17	16	94
Sample A		252	21	8,3	17							17	16	94
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		247	14	5,6	5	0	CVPG	239	7	16%	200	278	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		253	17	6,9	7	0	CVPG	250	1,5	16%	210	290	7	
Other					5	0							5	
							1x 1/36, 2x 4/1, 2x 4/179							
Sample B		260	26	10	17							17	16	94
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		251	19	7,4	5	0	CVPG	242	7,3	16%	203	281	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		263	20	7,5	7	0	CVPG	255	1,5	16%	214	296	7	
Other					5	0							5	
							1x 1/36, 2x 4/1, 2x 4/179							
(304) Progesterone	[nmol/L]				20							20	16	80
Sample A		12,5	2,6	21	20							20	19	95
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		14,5	0,9	6,2	8	0	CVPG	14,3	0,11	20%	11,4	17,2	8	
Other					12	0							12	
							1x 3/25, 4x 4/1, 4x 4/12, 3x 4/179							
Sample B		4,86	0,7	14	20							20	16	80
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		5,24	0,23	4,4	8	0	CVPG	4,9	0,057	20%	3,92	5,88	8	
Other					12	0							12	
							1x 3/25, 4x 4/1, 4x 4/12, 3x 4/179							

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Test Sample Group	[unit]	RoM	SD	CV [%]	N _{tot}	N _{out}	Comparability					N _{eva}	N _{suc}	S _{rel} [%]
							AV	U _{AV}	D _{max}	LL	UL			
(125) Free T3	[pmol/L]				21							21	19	90
Sample A		16,5	2,8	17	21							21	20	95
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		18,5	0,91	4,9	9	0	CVPG	18,4	0,055	15%	15,6	21,2	9	
Other					12	0							12	
								1x 1/36, 4x 4/1, 4x 4/12, 3x 4/179						
Sample B		33,4	6,5	19	21							21	20	95
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		39,5	1,8	4,5	9	0	CVPG	39,5	0,12	15%	33,5	45,5	9	
Other					12	0							12	
								1x 1/36, 4x 4/1, 4x 4/12, 3x 4/179						
(124) Free T4	[pmol/L]				28							28	28	100
Sample A		43,5	8,3	19	28							28	28	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		40,5	0,94	2,3	5	0	CVPG	40,6	0,47	13%	35,3	45,9	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		49,6	1,4	2,9	14	0	CVPG	50,1	0,22	13%	43,5	56,7	14	
Other					9	0							9	
								1x 1/36, 1x 3/25, 4x 4/1, 3x 4/179						
Sample B		17,4	3	17	28							28	28	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		14,5	0,28	1,9	5	0	CVPG	14,8	0,26	13%	12,8	16,8	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		19,5	0,65	3,4	14	0	CVPG	19,8	0,082	13%	17,2	22,4	14	
Other					9	0							9	
								1x 1/36, 1x 3/25, 4x 4/1, 3x 4/179						
(305) Testosterone	[nmol/L]				20							20	19	95
Sample A		50,6	3,4	6,8	20							20	20	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		49,3	5,1	10	7	0	CVPG	49,1	0,96	22%	38,2	60	7	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		52	0,037	0,07	9	0	CVPG	52	0,006	22%	40,5	63,5	9	
Other					4	0							4	
								1x 3/25, 1x 4/1, 2x 4/179						
Sample B		33,1	3,7	11	20							20	19	95
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		30,3	4,9	16	7	0	CVPG	30,2	0,64	22%	23,5	36,9	7	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		34,7	2,6	7,5	9	0	CVPG	33,4	0,22	22%	26	40,8	9	
Other					4	0							4	
								1x 3/25, 1x 4/1, 2x 4/179						
(123) TSH	[mU/L]				29							29	29	100
Sample A		25,2	2,4	9,4	29							29	29	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		24,4	0,41	1,7	6	0	CVPG	24,2	0,32	14%	20,8	27,6	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		26,8	0,86	3,2	15	0	CVPG	26,3	0,091	14%	22,6	30	15	
Other					8	0							8	
								1x 3/25, 4x 4/1, 3x 4/179						
Sample B		7,02	0,77	11	29							29	29	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		6,59	0,43	6,5	6	0	CVPG	6,73	0,077	14%	5,78	7,68	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		7,55	0,27	3,5	15	0	CVPG	7,43	0,025	14%	6,38	8,48	15	
Other					8	0							8	
								1x 3/25, 4x 4/1, 3x 4/179						