

EQA round: E13/24 - Hormones 1

Deadline: 19.7.2024

Setup: groups - M (measurement principle), R (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]				1							1	1	100
Sample A												1	1	100
Other					1	0						1		
							1x 1/36							
Sample B												1	1	100
Other					1	0						1		
							1x 1/36							
(303) Aldosterone	[nmol/L]				4							1	1	100
Sample A												1	1	100
Other					4	0						1		
							2x 1/36, 1x 4/73, 1x 4/164							
Sample B												1	1	100
Other					4	0						1		
							2x 1/36, 1x 4/73, 1x 4/164							
(307) DHEA-S	[µmol/L]				5							5	5	100
Sample A												5	5	100
Other					5	0						5		
							3x 4/12, 2x 4/60							
Sample B												5	5	100
Other					5	0						5		
							3x 4/12, 2x 4/60							
(302) 17-beta-estradiol	[pmol/L]				8							8	7	88
Sample A		678	36	5,2	8							8	7	88
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		679	24	3,5	5	0	CVPG	728	6,6	22%	567	889		
Other					3	0							3	
							1x 4/1, 2x 4/12							
Sample B		1120	50	4,4	8							8	7	88
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		1120	45	4	5	0	CVPG	1190	9,8	22%	928	1460		
Other					3	0							3	
							1x 4/1, 2x 4/12							
(200) Ferritin	[µg/L]				17							17	17	100
Sample A		385	91	24	17							17	17	100
(6) IMT, IMN; (60) Roche		397	15	3,9	5	0	CVPG	389	5,9	24%	295	483		
Other					12	0							12	
							4x 4/1, 4x 4/12, 3x 4/60, 1x 6/1							
Sample B		540	130	23	17							17	17	100
(6) IMT, IMN; (60) Roche		561	22	4	5	0	CVPG	564	9,2	24%	428	700		
Other					12	0							12	
							4x 4/1, 4x 4/12, 3x 4/60, 1x 6/1							
(301) Cortisol	[nmol/L]				8							8	7	88
Sample A												8	7	88
Other					8	0						8		
							1x 4/1, 3x 4/12, 4x 4/60							
Sample B												8	7	88
Other					8	0						8		
							1x 4/1, 3x 4/12, 4x 4/60							
(304) Progesterone	[nmol/L]				10							10	10	100
Sample A												10	10	100
Other					10	0						10		
							3x 4/1, 3x 4/12, 4x 4/60							
Sample B												10	10	100
Other					10	0						10		
							3x 4/1, 3x 4/12, 4x 4/60							
(121) Total T3	[nmol/L]				2							2	2	100
Sample A												2	2	100
Other					2	0						2		
							1x 4/1, 1x 4/12							
Sample B												2	2	100
Other					2	0						2		
							1x 4/1, 1x 4/12							
(125) Free T3	[pmol/L]				14							14	12	86
Sample A		30,9	5,3	17	14							14	14	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		26	1,1	4,2	5	0	CVPG	25,2	0,57	15%	21,4	29		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		36,4	1,3	3,7	5	0	CVPG	36,6	0,18	15%	31,1	42,1		

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							AV	U _{AV}	D _{max}	LL	UL			
Other					4	0	4x 4/1					4		
Sample B		5,76	0,8	14	14							14	12	86
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		5,42	0,62	11	5	0	CVPG	5,45	0,12	15%	4,63	6,27	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche Other		6,67	0,32	4,8	5	1	CVPG	6,74	0,035	15%	5,72	7,76	5	
					4	0	4x 4/1					4		
(122) Total T4	[nmol/L]				4							4	3	75
Sample A												4	3	75
Other					4	1	1x 4/1, 1x 4/12, 2x 4/60					4		
Sample B												4	4	100
Other					4	0	1x 4/1, 1x 4/12, 2x 4/60					4		
(124) Free T4	[pmol/L]				20							20	18	90
Sample A		53,7	16	30	20							20	19	95
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		33,6	1,5	4,4	6	0	CVPG	33,6	0,67	13%	29,2	38	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		55	0,95	1,7	5	0	CVPG	51,7	1,4	13%	44,9	58,5	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		65,8	3,9	5,9	9	0	CVPG	66,1	0,38	13%	57,5	74,7	9	
Sample B		14,1	2,5	17	20							20	19	95
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		12,3	0,33	2,7	6	0	CVPG	12,5	0,14	13%	10,8	14,2	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		12,5	0,67	5,4	5	0	CVPG	12,3	0,26	13%	10,7	13,9	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		16,2	0,44	2,7	9	0	CVPG	16,5	0,084	13%	14,3	18,7	9	
(305) Testosterone	[nmol/L]				10							10	10	100
Sample A		1,77	0,42	24	10							10	10	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche Other		1,5	0,18	12	6	0	CVPG	1,52	0,1	22%	1,18	1,86	6	
					4	0	4x 4/12					4		
Sample B		45,5	6,8	15	10							10	10	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche Other		50	3	6	6	0	CVPG	51,6	0,61	22%	40,2	63	6	
					4	0	4x 4/12					4		
(123) TSH	[mU/L]				20							20	20	100
Sample A		1,36	0,2	15	20							20	20	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		1,15	0,037	3,2	6	0	CVPG	1,18	0,013	14%	1,01	1,35	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		1,31	0,045	3,4	5	0	CVPG	1,34	0,023	14%	1,15	1,53	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		1,51	0,074	4,9	9	0	CVPG	1,51	0,008	14%	1,29	1,73	9	
Sample B		33,4	4,6	14	20							20	20	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		28,1	0,82	2,9	6	0	CVPG	28,5	0,27	14%	24,5	32,5	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		34,5	2,4	6,9	5	0	CVPG	34,7	0,73	14%	29,8	39,6	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		36,3	0,96	2,7	9	0	CVPG	36,5	0,2	14%	31,3	41,7	9	