

EQA round: E11/24 - Hormones 1

Deadline: 2.2.2024

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]				4							3	3	100
Sample A												3	3	100
Other					4	0	1x 1/36, 2x 2/66, 1x 4/73					3		
Sample B												3	3	100
Other					4	0	1x 1/36, 2x 2/66, 1x 4/73					3		
(303) Aldosterone	[nmol/L]				6							4	3	75
Sample A												4	3	75
Other					6	0	2x 1/36, 1x 2/66, 1x 4/73, 2x 4/164					4		
Sample B												4	3	75
Other					6	0	2x 1/36, 1x 2/66, 1x 4/73, 2x 4/164					4		
(307) DHEA-S	[µmol/L]				9							9	7	78
Sample A												9	8	89
Other					9	0	1x 4/1, 3x 4/12, 4x 4/60, 1x 4/179					9		
Sample B												9	7	78
Other					9	0	1x 4/1, 3x 4/12, 4x 4/60, 1x 4/179					9		
(302) 17-beta-estradiol	[pmol/L]				12							12	12	100
Sample A		1120	98	8,7	12							12	12	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		1140	99	8,7	7	0	CVPG	1170	8,3	22%	912	1430	7	
Other					5	0	2x 4/1, 2x 4/12, 1x 4/179					5		
Sample B		681	58	8,5	12							12	12	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		696	57	8,2	7	0	CVPG	716	5,3	22%	558	874	7	
Other					5	0	2x 4/1, 2x 4/12, 1x 4/179					5		
(200) Ferritin	[µg/L]				20							19	19	100
Sample A		541	120	23	20							19	19	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		668	69	10	5	0	CVPG	699	14	24%	531	867	5	
(6) IMT, IMN; (60) Roche		560	12	2,2	5	0	CVPG	568	8	24%	431	705	5	
Other					10	0	4x 4/12, 3x 4/60, 1x 6/1, 1x 6/58, 1x 6/178					9		
Sample B		388	88	23	20							19	19	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		478	22	4,6	5	0	CVPG	477	7,8	24%	362	592	5	
(6) IMT, IMN; (60) Roche		396	13	3,2	5	0	CVPG	396	5,2	24%	300	492	5	
Other					10	0	4x 4/12, 3x 4/60, 1x 6/1, 1x 6/58, 1x 6/178					9		
(301) Cortisol	[nmol/L]				12							11	10	91
Sample A		514	45	8,7	12							11	10	91
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		535	18	3,3	6	0	CVPG	532	3,6	16%	446	618	6	
Other					6	0	2x 4/1, 3x 4/12, 1x 4/73					5		
Sample B		971	110	12	12							11	10	91
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		1010	41	4	6	0	CVPG	996	7,5	16%	836	1160	6	
Other					6	0	2x 4/1, 3x 4/12, 1x 4/73					5		
(304) Progesterone	[nmol/L]				13							13	12	92
Sample A		61,1	8	13	13							13	13	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		66,8	2,7	4	6	0	CVPG	66,8	0,44	20%	53,4	80,2	6	
Other					7	0	3x 4/1, 3x 4/12, 1x 4/179					7		
Sample B		19,8	3,1	16	13							13	12	92
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		21,7	1,1	5	6	0	CVPG	21,7	0,16	20%	17,3	26,1	6	
Other					7	0	3x 4/1, 3x 4/12, 1x 4/179					7		
(121) Total T3	[nmol/L]				2							2	2	100
Sample A												2	2	100
Other					2	0	1x 4/1, 1x 4/12					2		
Sample B												2	2	100

EQA round: E11/24 - Hormones 1

Deadline: 2.2.2024

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

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			
Other					2	0	1x 4/1, 1x 4/12					2		
(125) Free T3	[pmol/L]				17							17	16	94
Sample A		5,85	0,75	13	17							17	17	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		5,29	0,21	3,9	5	0	CVPG	5,61	0,049	15%	4,76	6,46	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		5,4	0,14	2,6	5	0	CVPG	5,37	0,1	15%	4,56	6,18	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		6,57	0,31	4,7	6	0	CVPG	6,68	0,027	15%	5,67	7,69	6	
Other					1	0	1x 4/179					1		
Sample B		30	6	20	17							17	16	94
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		28,5	3,3	12	5	0	CVPG	30,6	0,082	15%	26	35,2	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		25,7	2	7,9	5	0	CVPG	24,8	0,41	15%	21	28,6	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		35,8	1,4	3,8	6	0	CVPG	36,2	0,12	15%	30,7	41,7	6	
Other					1	0	1x 4/179					1		
(122) Total T4	[nmol/L]				4							4	2	50
Sample A					4	0						4	3	75
Other					4	0	1x 4/1, 1x 4/12, 2x 4/60					4		
Sample B					4	1						4	2	50
Other					4	1	1x 4/1, 1x 4/12, 2x 4/60					4		
(124) Free T4	[pmol/L]				24							24	24	100
Sample A		14,1	2,2	16	24							24	24	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		12,6	0,5	4	7	0	CVPG	12,5	0,12	13%	10,8	14,2	7	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		12,1	0,29	2,4	5	0	CVPG	12,3	0,2	13%	10,7	13,9	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		16	1,1	6,9	11	0	CVPG	16,5	0,079	13%	14,3	18,7	11	
Other					1	0	1x 4/179					1		
Sample B		52,2	17	32	24							24	24	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		32,7	3,2	9,9	7	0	CVPG	33,7	0,48	13%	29,3	38,1	7	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		52,5	1,1	2	5	0	CVPG	52,3	0,86	13%	45,5	59,1	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		65,4	4	6,2	11	0	CVPG	66,2	0,31	13%	57,5	74,9	11	
Other					1	0	1x 4/179					1		
(305) Testosterone	[nmol/L]				14							14	14	100
Sample A		45,9	7,6	17	14							14	14	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		50,5	2,4	4,7	8	0	CVPG	51,3	0,18	22%	40	62,6	8	
Other					6	0	1x 4/1, 4x 4/12, 1x 4/179					6		
Sample B		1,67	0,5	30	14							14	14	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		1,41	0,14	10	8	0	CVPG	1,44	0,02	22%	1,12	1,76	8	
Other					6	0	1x 4/1, 4x 4/12, 1x 4/179					6		
(123) TSH	[mU/L]				25							25	24	96
Sample A		33,9	4,9	14	25							25	24	96
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		27,9	1,7	6,3	7	0	CVPG	28,5	0,22	14%	24,5	32,5	7	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		34	2	5,8	5	0	CVPG	33,5	0,55	14%	28,8	38,2	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		37,1	1,5	4,1	12	0	CVPG	36,8	0,17	14%	31,6	42	12	
Other					1	0	1x 4/179					1		
Sample B		1,41	0,2	14	25							25	24	96
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		1,16	0,038	3,2	7	0	CVPG	1,17	0,01	14%	1	1,34	7	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		1,34	0,052	3,9	5	0	CVPG	1,35	0,016	14%	1,16	1,54	5	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		1,55	0,053	3,4	12	0	CVPG	1,54	0,007	14%	1,32	1,76	12	
Other					1	0	1x 4/179					1		