

## Summary statistics - quantitative results

(Groups: measurement principle, manufacturer of kit)

Filter: Slovakia, minimal size of groups n = 5

## EQA round: E11/19 - Hormones 1

Dead line: 12.02.2019

RoM = robust average	AV = assigned value	Dmax = acceptable percent difference
SD = standard deviation	CRV = certified reference value	LL = lower limit
CV = coefficient of variation	RV = reference value	UL = upper limit
Ntot = total number of participants	CVE = consensus value from experts	Neva = number of evaluated participants
Nout = number of results excluded before calculation	CVP = consensus value from all participants	Nsuc = number of successful participants
	CVPG = consensus value from participants groups	Srel = success (relative)
	U <sub>AV</sub> = expanded uncertainty of the assigned value (k = 2)	

Test	[unit]	Comparability					Traceability																
		RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>	
<b>(121) Total T3</b>					3							3	3	100%						3	3	100%	
Samples and groups	[nmol/L]																						
<b>Sample A</b>		3,87	0,42	11	3							3	3	100%	CRV	4,167	0,044	20%	3,33	5,01	3	3	100%
Other					3	0						3									3		
							1x 4/1, 1x 4/12, 1x 4/60								1x 4/1, 1x 4/12, 1x 4/60								
<b>Sample B</b>		6,26	0,67	11	3							3	3	100%	CRV	6,4	0,085	20%	5,12	7,68	3	3	100%
Other					3	0						3									3		
							1x 4/1, 1x 4/12, 1x 4/60								1x 4/1, 1x 4/12, 1x 4/60								
<b>(122) Total T4</b>					3							3	2	67%						3	3	100%	
Samples and groups	[nmol/L]																						
<b>Sample A</b>		134	10	7,7	3							3	2	67%	CRV	144,4	1,4	17%	119	169	3	3	100%
Other					3	0						3									3		
							1x 4/1, 2x 4/12								1x 4/1, 2x 4/12								
<b>Sample B</b>		201	13	6,2	3							3	2	67%	CRV	201,3	2,3	17%	167	236	3	3	100%
Other					3	0						3									3		
							1x 4/1, 2x 4/12								1x 4/1, 2x 4/12								
<b>(123) TSH</b>					22							22	21	95%						0			
Samples and groups	[mU/L]																						
<b>Sample A</b>		9,49	1,1	12	22							22	22	100%						0			
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		8,24	0,58	7,1	7	0	CVPG	8,14	0,078	14%	7	9,28	7										
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		10,4	0,37	3,6	8	0	CVPG	10,6	0,030	14%	9,11	12,1	8										
Other					7	0						7											
							4x 4/12, 2x 4/149, 1x 4/179																
<b>Sample B</b>		6,23	0,51	8,2	22							22	21	95%						0			
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		5,90	0,49	8,3	7	0	CVPG	5,82	0,055	14%	5	6,64	7										
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		6,60	0,26	3,9	8	0	CVPG	6,66	0,020	14%	5,72	7,6	8										
Other					7	0						7											
							4x 4/12, 2x 4/149, 1x 4/179																
<b>(124) Free T4</b>					21							21	20	95%						0			
Samples and groups	[pmol/L]																						
<b>Sample A</b>		22,5	4,0	18	21							21	21	100%						0			
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		18,7	0,82	4,4	7	0	CVPG	18,8	0,11	13%	16,3	21,3	7										
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		26,7	1,7	6,6	7	0	CVPG	25,7	0,11	13%	22,3	29,1	7										
Other					7	0						7											
							4x 4/12, 2x 4/149, 1x 4/179																
<b>Sample B</b>		40,1	8,1	20	21							21	20	95%						0			
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		31,6	1,5	4,6	7	0	CVPG	31,9	0,28	13%	27,7	36,1	7										

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Test	[unit]	Comparability						Traceability																
		RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>		
<b>(124) Free T4</b>					21							21	20	95%									0	
Samples and groups	[pmol/L]																							
<b>Sample B</b>		40,1	8,1	20	21							21	20	95%									0	
(4) LIA (CLIA, CMIA, ECLIA); (60)		48,0	2,1	4,4	7	0	CVPG	46,2	0,24	13%	40,1	52,3		7										
Roche																								
Other					7	0								7										
								4x 4/12, 2x 4/149, 1x 4/179																
<b>(125) Free T3</b>					15							15	13	87%									0	
Samples and groups	[pmol/L]																							
<b>Sample A</b>		11,8	2,1	17	15							15	14	93%									0	
(4) LIA (CLIA, CMIA, ECLIA); (1)		10,9	0,29	2,7	5	0	CVPG	10,1	0,17	15%	8,58	11,7		5										
Abbott																								
Other					10	0								10										
								3x 4/12, 4x 4/60, 2x 4/149, 1x 4/179																
<b>Sample B</b>		25,3	4,7	18	15							15	13	87%									0	
(4) LIA (CLIA, CMIA, ECLIA); (1)		24,6	1,2	4,9	5	0	CVPG	21,8	0,55	15%	18,5	25,1		5										
Abbott																								
Other					10	0								10										
								3x 4/12, 4x 4/60, 2x 4/149, 1x 4/179																
<b>(200) Ferritin</b>					19							18	17	94%									0	
Samples and groups	[µg/L]																							
<b>Sample A</b>		622	160	25	19							18	18	100%									0	
(4) LIA (CLIA, CMIA, ECLIA); (1)		798	56	7,1	5	0	CVPG	790	12	24%	600	980		5										
Abbott																								
Other					14	0								13										
								1x 4/12, 2x 4/60, 2x 4/149, 1x 4/179, 1x 6/1, 4x 6/58, 2x 6/60, 1x 6/177																
<b>Sample B</b>		112	20	18	19							18	17	94%									0	
(4) LIA (CLIA, CMIA, ECLIA); (1)		134	6,3	4,7	5	0	CVPG	135	2,2	24%	102	168		5										
Abbott																								
Other					14	0								13										
								1x 4/12, 2x 4/60, 2x 4/149, 1x 4/179, 1x 6/1, 4x 6/58, 2x 6/60, 1x 6/177																
<b>(301) Cortisol</b>					10							10	10	100%									10	
Samples and groups	[nmol/L]																						9	
<b>Sample A</b>		267	29	11	10							10	10	100%	CRV	300,7	3,0	22%	234	367		10	9	90%
Other					10	0								10									10	
								4x 4/1, 3x 4/12, 1x 4/29, 2x 4/60								4x 4/1, 3x 4/12, 1x 4/29, 2x 4/60								
<b>Sample B</b>		968	100	11	10							10	10	100%	CRV	1029	11	22%	802	1260		10	10	100%
Other					10	0								10									10	
								4x 4/1, 3x 4/12, 1x 4/29, 2x 4/60								4x 4/1, 3x 4/12, 1x 4/29, 2x 4/60								
<b>(302) 17-beta-estradiol</b>					12							12	11	92%									0	
Samples and groups	[pmol/L]																							
<b>Sample A</b>		626	41	6,6	12							12	11	92%									0	
Other					12	0								12										
								3x 4/1, 3x 4/12, 3x 4/60, 2x 4/149, 1x 4/179																
<b>Sample B</b>		650	25	3,8	12							12	12	100%									0	
Other					12	0								12										
								3x 4/1, 3x 4/12, 3x 4/60, 2x 4/149, 1x 4/179																
<b>(303) Aldosterone</b>					5							5	5	100%									0	
Samples and groups	[nmol/L]																							
<b>Sample A</b>		0,310	0,04	14	5							5	5	100%									0	

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		RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>			
<b>(303) Aldosterone</b>	[nmol/L]				5							5	5	100%									0		
Samples and groups																									
<b>Sample A</b>		0,310	0,04	14	5							5	5	100%									0		
Other					5	0						5													
<b>Sample B</b>		1,17	0,20	17	5							5	5	100%									0		
Other					5	0						5													
<b>(304) Progesterone</b>	[nmol/L]				14							12	12	100%									14		
Samples and groups																							11		
<b>Sample A</b>		6,37	0,88	14	14							12	12	100%	CRV	5,64	0,060	26%	4,17	7,11		14	12	86%	
(4) LIA (CLIA, CMIA, ECLIA); (12)		6,18	0,92	15	5	0	CVPG	6,28	0,26	20%	5,02	7,54										5			
Beckman Coulter																									
Other					9	0							7										9		
<b>Sample B</b>		26,1	4,2	16	14							12	12	100%	CRV	26,35	0,26	26%	19,4	33,3		14	13	93%	
(4) LIA (CLIA, CMIA, ECLIA); (12)		23,6	1,7	7,2	5	0	CVPG	23	0,72	20%	18,4	27,6										5			
Beckman Coulter																									
Other					9	0							7										9		
<b>(305) Testosterone</b>	[nmol/L]				12							12	11	92%									12	12	100%
Samples and groups																									
<b>Sample A</b>		9,09	0,96	11	12							12	12	100%	CRV	9,348	0,093	30%	6,54	12,2		12	12	100%	
(4) LIA (CLIA, CMIA, ECLIA); (12)		8,50	0,70	8,3	5	0	CVPG	8,17	0,20	22%	6,37	9,97										5			
Beckman Coulter																									
Other					7	0							7										7		
<b>Sample B</b>		5,57	0,52	9,3	12							12	11	92%	CRV	5,433	0,077	30%	3,8	7,07		12	12	100%	
(4) LIA (CLIA, CMIA, ECLIA); (12)		5,78	0,49	8,5	5	0	CVPG	5,63	0,13	22%	4,39	6,87										5			
Beckman Coulter																									
Other					7	0							7										7		
<b>(306) 17-OH-progesterone</b>	[nmol/L]				2							1	1	100%									2	2	100%
Samples and groups																									
<b>Sample A</b>		7,97	0,27	3,3	2							1	1	100%	CRV	8,275	0,083	44%	4,63	12		2	2	100%	
Other					2	0						1											2		
<b>Sample B</b>		7,50	0,21	2,7	2							1	1	100%	CRV	7,113	0,071	44%	3,98	10,3		2	2	100%	
Other					2	0						1											2		
<b>(307) DHEA-S</b>	[µmol/L]				8							8	8	100%									0		
Samples and groups																									
<b>Sample A</b>		11,2	1,6	15	8							8	8	100%									0		
Other					8	0						8													
<b>Sample B</b>		14,1	2,2	16	8							8	8	100%									0		
Other					8	0						8													