

## Summary statistics - quantitative results

(Groups: measurement principle, manufacturer of kit)

Filter: Slovakia, minimal size of groups n = 5

Dead line: 07.08.2018

## EQA round: E13/18 - Hormones 1

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	2	67%
Samples and groups	[nmol/L]																						
<b>Sample A</b>		3,75	0,58	15	3							3	3	100%	CRV	4,167	0,044	20%	3,33	5,01	3	2	67%
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>		1,77	0,09	5,5	3							3	3	100%	CRV	2,049	0,020	20%	1,63	2,46	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>		139	9,6	6,9	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>		247	10	4,2	3							3	2	67%	CRV	261,2	2,9	17%	216	306	3	3	100%
Other					3	0						3									3		
							1x 4/1, 2x 4/12								1x 4/1, 2x 4/12								
<b>(123) TSH</b>					15							15	15	100%							0		
Samples and groups	[mU/L]																						
<b>Sample A</b>		9,59	1,1	12	15							15	15	100%							0		
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		8,37	0,07	0,83	5	0	CVPG	8,11	0,070	14%	6,97	9,25	5										
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		10,5	0,29	2,8	6	0	CVPG	10,8	0,031	14%	9,28	12,4	6										
Other					4	0						4											
							3x 4/12, 1x 4/149																
<b>Sample B</b>		4,96	0,57	11	15							15	15	100%							0		
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		4,40	0,06	1,5	5	0	CVPG	4,21	0,042	14%	3,62	4,8	5										
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		5,51	0,16	2,8	6	0	CVPG	5,54	0,016	14%	4,76	6,32	6										
Other					4	0						4											
							3x 4/12, 1x 4/149																
<b>(124) Free T4</b>					15							15	15	100%							0		
Samples and groups	[pmol/L]																						
<b>Sample A</b>		23,0	4,4	19	15							15	15	100%							0		
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		19,2	0,64	3,4	5	0	CVPG	19,1	0,17	13%	16,6	21,6	5										
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		27,4	1,3	4,7	6	0	CVPG	26,8	0,13	13%	23,3	30,3	6										
Other					4	0						4											
							3x 4/12, 1x 4/149																
<b>Sample B</b>		54,0	15	28	15							15	15	100%							0		
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		38,7	0,24	0,61	5	0	CVPG	40,1	0,53	13%	34,8	45,4	5										

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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>	[pmol/L]				15							15	15	100%									0	
Samples and groups																								
<b>Sample B</b>		54,0	15	28	15							15	15	100%									0	
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		69,7	5,1	7,3	6	0	CVPG	66	0,38	13%	57,4	74,6	6											
Other					4	0							4											
													3x 4/12, 1x 4/149											
<b>(125) Free T3</b>	[pmol/L]				11							11	11	100%									0	
Samples and groups																								
<b>Sample A</b>		11,6	2,0	17	11							11	11	100%									0	
Other					11	0							11											
													4x 4/1, 3x 4/12, 3x 4/60, 1x 4/149											
<b>Sample B</b>		6,67	0,79	12	11							11	11	100%									0	
Other					11	0							11											
													4x 4/1, 3x 4/12, 3x 4/60, 1x 4/149											
<b>(200) Ferritin</b>	[µg/L]				12							11	9	82%									0	
Samples and groups																								
<b>Sample A</b>		609	150	25	12							11	10	91%									0	
Other					12	1							11											
													4x 4/1, 1x 4/12, 3x 4/60, 1x 4/149, 1x 6/1, 2x 6/58											
<b>Sample B</b>		18,2	5,9	33	12							11	10	91%									0	
Other					12	0							11											
													4x 4/1, 1x 4/12, 3x 4/60, 1x 4/149, 1x 6/1, 2x 6/58											
<b>(301) Cortisol</b>	[nmol/L]				8							8	8	100%								8	7	88%
Samples and groups																								
<b>Sample A</b>		265	37	14	8							8	8	100%	CRV	300,7	3,0	22%	234	367		8	7	88%
Other					8	0						8											8	
													3x 4/1, 3x 4/12, 2x 4/29											
<b>Sample B</b>		264	27	10	8							8	8	100%	CRV	305,9	3,7	22%	238	374		8	8	100%
Other					8	0						8											8	
													3x 4/1, 3x 4/12, 2x 4/29											
<b>(302) 17-beta-estradiol</b>	[pmol/L]				9							9	8	89%								9	8	89%
Samples and groups																								
<b>Sample A</b>		614	98	16	9							9	8	89%	CRV	647,4	7,6	30%	453	842		9	8	89%
Other					9	0						9											9	
													2x 4/1, 3x 4/12, 1x 4/29, 2x 4/60, 1x 4/149											
<b>Sample B</b>		1320	210	16	9							9	8	89%	CRV	1304	15	30%	912	1700		9	8	89%
Other					9	0						9											9	
													2x 4/1, 3x 4/12, 1x 4/29, 2x 4/60, 1x 4/149											
<b>(303) Aldosterone</b>	[nmol/L]				4							3	2	67%									0	
Samples and groups																								
<b>Sample A</b>		0,334	0,23	69	4							3	2	67%									0	
Other					4	0						3												
													1x 1/36, 2x 2/66, 1x 2/999											
<b>Sample B</b>		1,21	0,36	30	4							3	3	100%									0	
Other					4	0						3												
													1x 1/36, 2x 2/66, 1x 2/999											

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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>(304) Progesterone</b>	[nmol/L]				10							9	8	89%									0					
Samples and groups																												
<b>Sample A</b>		6,17	0,69	11	10							9	8	89%									0					
(4) LIA (CLIA, CMIA, ECLIA); (12)		6,09	0,31	5,1	5	0	CVPG	6,32	0,23	20%	5,05	7,59		5														
Beckman Coulter																												
Other					5	0								4														
								2x 4/1, 1x 4/29, 1x 4/60, 1x 4/149																				
<b>Sample B</b>		11,7	1,5	13	10								9	9	100%								0					
(4) LIA (CLIA, CMIA, ECLIA); (12)		11,1	0,87	7,8	5	0	CVPG	11,2	0,41	20%	8,96	13,5		5														
Beckman Coulter																												
Other					5	0								4														
								2x 4/1, 1x 4/29, 1x 4/60, 1x 4/149																				
<b>(305) Testosterone</b>	[nmol/L]				11								11	11	100%								11	11	100%			
Samples and groups																												
<b>Sample A</b>		8,81	0,78	8,9	11									11	11	100%	CRV	9,348	0,093	30%	6,54	12,2		11	11	100%		
(4) LIA (CLIA, CMIA, ECLIA); (12)		8,20	0,37	4,5	5	0	CVPG	8,04	0,16	22%	6,27	9,81		5										5				
Beckman Coulter																												
Other					6	0								6											6			
								1x 4/1, 2x 4/29, 3x 4/60										1x 4/1, 2x 4/29, 3x 4/60										
<b>Sample B</b>		4,36	0,27	6,3	11									11	11	100%	CRV	4,615	0,054	30%	3,23	6		11	11	100%		
(4) LIA (CLIA, CMIA, ECLIA); (12)		4,37	0,27	6,3	5	0	CVPG	4,26	0,083	22%	3,32	5,2		5										5				
Beckman Coulter																												
Other					6	0								6											6			
								1x 4/1, 2x 4/29, 3x 4/60										1x 4/1, 2x 4/29, 3x 4/60										
<b>(306) 17-OH-progesterone</b>	[nmol/L]				4									3	3	100%								4	4	100%		
Samples and groups																												
<b>Sample A</b>		8,96	1,1	12	4									3	3	100%	CRV	8,275	0,083	44%	4,63	12		4	4	100%		
Other					4	0								3											4			
								1x 1/36, 2x 2/66, 1x 2/999										1x 1/36, 2x 2/66, 1x 2/999										
<b>Sample B</b>		4,88	1,3	27	4									3	3	100%	CRV	3,219	0,032	±2,641	0,579	5,86		4	4	100%		
Other					4	0								3											4			
								1x 1/36, 2x 2/66, 1x 2/999										1x 1/36, 2x 2/66, 1x 2/999										
<b>(307) DHEA-S</b>	[µmol/L]				7									7	7	100%										0		
Samples and groups																												
<b>Sample A</b>		9,65	0,82	8,4	7									7	7	100%										0		
Other					7	0								7														
								1x 4/1, 4x 4/12, 1x 4/29, 1x 4/60																				
<b>Sample B</b>		5,39	0,62	11	7									7	7	100%										0		
Other					7	0								7														
								1x 4/1, 4x 4/12, 1x 4/29, 1x 4/60																				

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End of report

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