

## Summary statistics - quantitative results

(Groups: measurement principle, manufacturer of kit)

Filter: Slovakia, minimal size of groups n = 5

## EQA round: TM2/19 - Tumour Markers

Dead line: 07.05.2019

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					Comparability							
		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>
<b>(180) CA 125</b>					26							25	24	96%
Samples and groups	[kU/L]													
<b>Sample A</b>		45,6	11	24	26							25	24	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	35,6	1,2	3,3	5	0	CVPG	37,3	0,70	20%	29,8	44,8	5	
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	45,3	3,3	7,2	11	0	CVPG	45,4	0,37	20%	36,3	54,5	11	
Other					10	0							9	
								1x 3/24, 1x 3/25, 4x 4/1, 2x 4/149, 2x 4/179						
<b>Sample B</b>		62,4	13	21	26							25	24	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	51,2	1,4	2,7	5	0	CVPG	50,8	0,92	20%	40,6	61	5	
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	61,8	4,4	7,1	11	0	CVPG	62,3	0,51	20%	49,8	74,8	11	
Other					10	0							9	
								1x 3/24, 1x 3/25, 4x 4/1, 2x 4/149, 2x 4/179						
<b>(181) CA 15-3</b>					21							21	20	95%
Samples and groups	[kU/L]													
<b>Sample A</b>		12,5	1,7	14	21							21	20	95%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	13,7	0,52	3,8	11	0	CVPG	13,3	0,13	18%	10,9	15,7	11	
Other					10	0							10	
								1x 3/24, 3x 4/1, 4x 4/12, 1x 4/149, 1x 4/179						
<b>Sample B</b>		15,4	1,6	10	21							21	20	95%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	16,3	0,83	5,1	11	0	CVPG	16,2	0,15	18%	13,2	19,2	11	
Other					10	0							10	
								1x 3/24, 3x 4/1, 4x 4/12, 1x 4/149, 1x 4/179						
<b>(182) CA 19-9</b>					25							25	22	88%
Samples and groups	[kU/L]													
<b>Sample A</b>		33,6	9,7	29	25							25	23	92%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	34,8	1,9	5,3	7	0	CVPG	35,5	0,82	20%	28,4	42,6	7	
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	26,3	2,2	8,4	11	0	CVPG	25,7	0,21	20%	20,5	30,9	11	
Other					7	0							7	
								1x 3/24, 2x 4/1, 2x 4/149, 2x 4/179						
<b>Sample B</b>		15,1	2,6	17	25							25	23	92%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	14,1	0,62	4,4	7	0	CVPG	14,4	0,34	20%	11,5	17,3	7	
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	14,1	1,5	10	11	0	CVPG	13,9	0,12	±2,8	11,1	16,7	11	
Other					7	0							7	
								1x 3/24, 2x 4/1, 2x 4/149, 2x 4/179						
<b>(183) CA 72-4</b>					21							19	19	100%
Samples and groups	[kU/L]													
<b>Sample A</b>		5,10	0,48	9,3	21							19	19	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	5,10	0,40	7,9	19	0	CVPG	5,25	0,086	20%	4,2	6,3	19	
Other					2	0							0	
								2x 1/185						
<b>Sample B</b>		6,23	0,52	8,3	21							19	19	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	6,19	0,50	8,0	19	0	CVPG	6,39	0,11	20%	5,11	7,67	19	
Other					2	0							0	
								2x 1/185						
<b>(184) CYFRA 21-1</b>					22							22	22	100%
Samples and groups	[µg/L]													
<b>Sample A</b>		8,24	0,52	6,4	22							22	22	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	8,36	0,47	5,6	18	0	CVPG	8,25	0,093	18%	6,76	9,74	18	
Other					4	0							4	
								1x 3/24, 3x 4/1						
<b>Sample B</b>		17,4	1,1	6,6	22							22	22	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	17,7	0,92	5,2	18	0	CVPG	17,4	0,18	18%	14,2	20,6	18	
Other					4	0							4	
								1x 3/24, 3x 4/1						
<b>(185) AFP</b>					25							25	24	96%
Samples and groups	[µg/L]													
<b>Sample A</b>		17,0	2,1	12	25							25	24	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	15,2	1,9	12	8	0	CVPG	16,2	0,35	20%	12,9	19,5	8	

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Test	[unit]	RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	Comparability						N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>
							AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL				
<b>(185) AFP</b>					25								25	24	96%
Samples and groups		[µg/L]													
<b>Sample A</b>		17,0	2,1	12	25								25	24	96%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	18,7	0,78	4,2	10	0	CVPG	18,3	0,16	20%	14,6	22	10		
Other					7	0							7		
		1x 3/24, 2x 4/1, 2x 4/149, 2x 4/179													
<b>Sample B</b>		2,96	0,38	13	25								25	25	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	2,85	0,38	13	8	0	CVPG	2,88	0,078	±2	0,88	4,88	8		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	3,04	0,29	9,5	10	0	CVPG	3,04	0,040	±2	1,04	5,04	10		
Other					7	0							7		
		1x 3/24, 2x 4/1, 2x 4/149, 2x 4/179													
<b>(186) hCG</b>					28								28	28	100%
Samples and groups		[U/L]													
<b>Sample A</b>		2,17	0,59	27	28								28	28	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	2,60	0,30	11	8	0	CVPG	2,67	0,051	±1,44	1,23	4,11	8		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	1,81	0,14	7,8	7	0	CVPG	1,81	0,018	±1,44	0,37	3,25	7		
(4) LIA (CLIA, CMIA, ECLIA); (210)	Roche HCG STAT	1,65	0,53	32	6	0	CVPG	1,65	0,23	±1,44	0,21	3,09	6		
Other					7	0							7		
		1x 3/25, 2x 4/1, 2x 4/149, 2x 4/179													
<b>Sample B</b>		17,2	1,6	9,1	28								28	28	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	16,9	0,74	4,4	8	0	CVPG	17,4	0,25	18%	14,2	20,6	8		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	18,7	1,1	6,2	7	0	CVPG	19,1	0,12	18%	15,6	22,6	7		
(4) LIA (CLIA, CMIA, ECLIA); (210)	Roche HCG STAT	16,2	0,67	4,2	6	0	CVPG	16,3	0,43	18%	13,3	19,3	6		
Other					7	0							7		
		1x 3/25, 2x 4/1, 2x 4/149, 2x 4/179													
<b>(189) CEA</b>					25								25	22	88%
Samples and groups		[µg/L]													
<b>Sample A</b>		28,8	3,6	12	25								25	22	88%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	29,3	3,4	12	7	0	CVPG	32,5	0,78	16%	27,3	37,7	7		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	25,8	1,8	6,9	10	0	CVPG	26,2	0,16	16%	22	30,4	10		
Other					8	0							8		
		3x 4/1, 1x 4/149, 4x 4/179													
<b>Sample B</b>		10,8	0,88	8,1	25								25	25	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	10,8	1,1	10	7	0	CVPG	11,9	0,23	16%	9,99	13,9	7		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	10,3	0,48	4,6	10	0	CVPG	10,2	0,061	16%	8,56	11,9	10		
Other					8	0							8		
		3x 4/1, 1x 4/149, 4x 4/179													
<b>(191) PSA</b>					28								28	27	96%
Samples and groups		[µg/L]													
<b>Sample A</b>		2,68	0,37	14	28								28	28	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	3,10	0,15	4,8	6	0	CVPG	3,13	0,046	15%	2,66	3,6	6		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	2,81	0,09	3,2	10	0	CVPG	2,76	0,017	15%	2,34	3,18	10		
(4) LIA (CLIA, CMIA, ECLIA); (179)	Siemens (Bayer)	2,43	0,067	2,8	5	0	CVPG	2,48	0,028	15%	2,1	2,86	5		
Other					7	0							7		
		3x 4/1, 2x 4/149, 2x 4/195													
<b>Sample B</b>		0,091	0,023	25	28								28	27	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	0,099	0,001	1,5	6	0	CVPG	0,102	0,021	±0,105	0	0,207	6		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	0,087	0,012	14	10	0	CVPG	0,08	0	±0,105	0	0,185	10		
(4) LIA (CLIA, CMIA, ECLIA); (179)	Siemens (Bayer)	0,115	0,007	6,4	5	0	CVPG	0,11	0,041	±0,105	0,005	0,215	5		
Other					7	0							7		
		3x 4/1, 2x 4/149, 2x 4/195													
<b>(194) NSE</b>					20								20	18	90%
Samples and groups		[µg/L]													
<b>Sample A</b>		7,16	1,1	16	20								20	18	90%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	6,90	0,83	12	17	0	CVPG	7,19	0,16	30%	5,03	9,35	17		
Other					3	0							3		
		2x 3/24, 1x 4/164													
<b>Sample B</b>		52,5	3,6	6,8	20								20	20	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	52,8	3,3	6,2	17	0	CVPG	52,8	0,58	30%	36,9	68,7	17		
Other					3	0							3		
		2x 3/24, 1x 4/164													

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Dead line: 07.05.2019

Test	[unit]	RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	Comparability							
							AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>
<b>(195) SCCA</b>					11							11	10	91%
Samples and groups	[µg/L]													
<b>Sample A</b>		1,65	0,20	12	11							11	10	91%
(4) LIA (CLIA, CMIA, ECLIA); (1)		1,60	0,00	0,00	5	0	CVPG	1,62	0,036	±0,7	0,92	2,32	5	
Abbott														
(4) LIA (CLIA, CMIA, ECLIA); (60)		1,74	0,19	11	6	0	CVPG	1,8	0,062	±0,7	1,1	2,5	6	
Roche														
<b>Sample B</b>		1,41	0,13	9,2	11							11	10	91%
(4) LIA (CLIA, CMIA, ECLIA); (1)		1,35	0,074	5,5	5	0	CVPG	1,38	0,038	±0,7	0,68	2,08	5	
Abbott														
(4) LIA (CLIA, CMIA, ECLIA); (60)		1,48	0,14	9,5	6	0	CVPG	1,54	0,052	±0,7	0,84	2,24	6	
Roche														
<b>(198) free-PSA</b>					23							23	23	100%
Samples and groups	[µg/L]													
<b>Sample A</b>		1,98	0,18	9,2	23							23	23	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)		1,89	0,16	8,3	8	0	CVPG	1,88	0,013	16%	1,57	2,19	8	
Roche														
Other					15	0							15	
								3x 4/1, 4x 4/12, 2x 4/149, 4x 4/179, 2x 4/195						
<b>Sample B</b>		0,017	0,005	33	23							23	23	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)		0,021	0,013	63	8	0	CVPG	0,02		0 ±0,112	0	0,132	8	
Roche														
Other					15	0							15	
								3x 4/1, 4x 4/12, 2x 4/149, 4x 4/179, 2x 4/195						
<b>(201) S-100</b>					8							6	6	100%
Samples and groups	[µg/L]													
<b>Sample A</b>		0,038	0,012	31	8							6	6	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)		0,039	0,002	5,7	6	0	CVPG	0,039		0 ±0,013	0,026	0,052	6	
Roche														
Other					2	0							0	
								2x 2/98						
<b>Sample B</b>		0,055	0,012	22	8							6	6	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)		0,051	0,005	10	6	0	CVPG	0,049		0	32%	0,033	0,065	6
Roche														
Other					2	0							0	
								2x 2/98						
<b>(206) Calcitonin</b>					9							7	4	57%
Samples and groups	[ng/L]													
<b>Sample A</b>		19,6	0,59	3,0	9							7	7	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)		19,6	0,55	2,8	6	0	CVPG	19,9	0,32	27%	14,5	25,3	6	
Roche														
Other					3	0							1	
								2x 1/24, 1x 4/29						
<b>Sample B</b>		0,755	0,26	34	9							7	4	57%
(4) LIA (CLIA, CMIA, ECLIA); (60)		0,706	0,20	28	6	0	CVPG	0,543	0,017	27%	0,396	0,69	6	
Roche														
Other					3	0							1	
								2x 1/24, 1x 4/29						
<b>(207) Thyreoglobulin</b>					13							13	12	92%
Samples and groups	[µg/L]													
<b>Sample A</b>		15,6	5,2	33	13							13	13	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)		19,2	0,94	4,9	7	0	CVPG	19	0,22	30%	13,3	24,7	7	
Roche														
Other					6	0							6	
								2x 3/24, 3x 4/12, 1x 4/164						
<b>Sample B</b>		29,5	9,5	32	13							13	12	92%
(4) LIA (CLIA, CMIA, ECLIA); (60)		36,2	2,4	6,6	7	0	CVPG	35,9	0,38	30%	25,1	46,7	7	
Roche														
Other					6	0							6	
								2x 3/24, 3x 4/12, 1x 4/164						
<b>(208) beta-2-microglobulin</b>					14							12	11	92%
Samples and groups	[mg/L]													
<b>Sample A</b>		4,09	0,36	8,8	14							12	11	92%
Other					14	0							12	
								2x 1/36, 1x 4/29, 1x 4/60, 1x 6/12, 3x 6/58, 2x 6/60, 1x 6/75, 1x 6/91, 2x 6/149						
<b>Sample B</b>		3,97	0,41	10	14							12	11	92%
Other					14	0							12	
								2x 1/36, 1x 4/29, 1x 4/60, 1x 6/12, 3x 6/58, 2x 6/60, 1x 6/75, 1x 6/91, 2x 6/149						

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End of report

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