

Summary statistics - quantitative results

(Groups: measurement principle, manufacturer of kit)

Filter: Slovakia, minimal size of groups n = 5

EQA round: TM4/18 - Tumour Markers

Dead line: 23.10.2018

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 _{AV} = expanded uncertainty of the assigned value (k = 2)	

Test	[unit]	Comparability												
		RoM	SD	CV [%]	N _{tot}	N _{out}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}
(180) CA 125					26							26	24	92%
Samples and groups	[kU/L]													
Sample A		22,5	3,9	17	26							26	24	92%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	18,1	1,7	9,4	5	0	CVPG	17,9	0,40	20%	14,3	21,5	5	
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	23,1	1,9	8,3	14	0	CVPG	22,6	0,22	20%	18	27,2	14	
Other					7	0							7	
								1x 3/24, 1x 3/25, 3x 4/1, 2x 4/179						
Sample B		13,6	2,2	16	26							26	24	92%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	11,0	0,51	4,6	5	0	CVPG	11,1	0,22	20%	8,88	13,4	5	
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	14,1	1,3	9,2	14	0	CVPG	13,9	0,15	20%	11,1	16,7	14	
Other					7	0							7	
								1x 3/24, 1x 3/25, 3x 4/1, 2x 4/179						
(181) CA 15-3					22							22	20	91%
Samples and groups	[kU/L]													
Sample A		17,3	3,3	19	22							22	21	95%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	19,0	1,1	5,8	13	0	CVPG	18,8	0,16	18%	15,4	22,2	13	
Other					9	0							9	
								1x 3/24, 2x 4/1, 4x 4/12, 2x 4/179						
Sample B		25,6	5,8	23	22							22	20	91%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	28,7	2,0	6,9	13	0	CVPG	28,4	0,22	18%	23,2	33,6	13	
Other					9	0							9	
								1x 3/24, 2x 4/1, 4x 4/12, 2x 4/179						
(182) CA 19-9					25							25	24	96%
Samples and groups	[kU/L]													
Sample A		6,97	1,9	27	25							25	25	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	5,13	0,55	11	7	0	CVPG	5,43	0,17	±2,8	2,63	8,23	7	
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	7,66	1,5	20	14	0	CVPG	7,58	0,10	±2,82	4,78	10,4	14	
Other					4	0							4	
								1x 3/24, 1x 4/1, 2x 4/179						
Sample B		74,6	16	21	25							25	24	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	86,4	1,5	1,7	7	0	CVPG	88,7	1,6	20%	70,9	107	7	
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	63,8	4,3	6,7	14	0	CVPG	61,9	0,45	20%	49,5	74,3	14	
Other					4	0							4	
								1x 3/24, 1x 4/1, 2x 4/179						
(183) CA 72-4					23							21	20	95%
Samples and groups	[kU/L]													
Sample A		1,57	0,22	14	23							21	21	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	1,54	0,19	12	21	0	CVPG	1,57	0,025	±0,6	0,97	2,17	21	
Other					2	0							0	
								2x 1/185						
Sample B		3,19	0,31	9,6	23							21	20	95%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	3,15	0,27	8,6	21	0	CVPG	3,17	0,040	20%	2,53	3,81	21	
Other					2	0							0	
								2x 1/185						
(184) CYFRA 21-1					24							24	24	100%
Samples and groups	[µg/L]													
Sample A		15,1	0,72	4,7	24							24	24	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	15,1	0,64	4,2	21	0	CVPG	15	0,15	18%	12,3	17,7	21	
Other					3	0							3	
								1x 3/24, 2x 4/1						
Sample B		10,5	0,50	4,8	24							24	24	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	10,5	0,47	4,4	21	0	CVPG	10,3	0,11	18%	8,44	12,2	21	
Other					3	0							3	
								1x 3/24, 2x 4/1						
(185) AFP					25							25	24	96%
Samples and groups	[µg/L]													
Sample A		22,4	3,0	13	25							25	24	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	19,8	3,6	18	8	0	CVPG	20,8	0,49	20%	16,6	25	8	

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Test	[unit]	RoM	SD	CV [%]	N _{tot}	N _{out}	Comparability						N _{eva}	N _{suc}	S _{rel}
							AV	U _{AV}	D _{max}	LL	UL				
(185) AFP					25								25	24	96%
Samples and groups		[µg/L]													
Sample A		22,4	3,0	13	25								25	24	96%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	24,6	1,4	5,7	13	0	CVPG	23,9	0,20	20%	19,1	28,7	13		
Other					4	0							4		
		1x 3/24, 1x 4/1, 2x 4/179													
Sample B		38,4	5,3	14	25								25	25	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	34,0	3,9	11	8	0	CVPG	35,7	0,78	20%	28,5	42,9	8		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	42,0	2,9	6,9	13	0	CVPG	41,1	0,36	20%	32,8	49,4	13		
Other					4	0							4		
		1x 3/24, 1x 4/1, 2x 4/179													
(186) hCG					26								26	24	92%
Samples and groups		[U/L]													
Sample A		46,5	7,1	15	26								26	25	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	44,2	2,4	5,4	7	0	CVPG	45,7	0,67	18%	37,4	54	7		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	55,0	1,6	3,0	7	0	CVPG	53,7	0,36	18%	44	63,4	7		
(4) LIA (CLIA, CMIA, ECLIA); (210)	Roche HCG STAT	43,4	4,0	9,2	7	0	CVPG	43,1	2,2	18%	35,3	50,9	7		
Other					5	0							5		
		1x 3/25, 2x 4/1, 2x 4/179													
Sample B		12,1	1,4	12	26								26	25	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	12,7	0,79	6,2	7	0	CVPG	12,6	0,18	18%	10,3	14,9	7		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	13,3	0,62	4,6	7	0	CVPG	12,8	0,089	18%	10,4	15,2	7		
(4) LIA (CLIA, CMIA, ECLIA); (210)	Roche HCG STAT	11,1	1,5	14	7	0	CVPG	11	0,66	18%	9,02	13	7		
Other					5	0							5		
		1x 3/25, 2x 4/1, 2x 4/179													
(189) CEA					26								26	26	100%
Samples and groups		[µg/L]													
Sample A		7,69	0,57	7,4	26								26	26	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	7,96	0,24	3,0	7	0	CVPG	8,54	0,18	16%	7,17	9,91	7		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	7,41	0,40	5,4	13	0	CVPG	6,92	0,060	16%	5,81	8,03	13		
Other					6	0							6		
		2x 4/1, 4x 4/179													
Sample B		5,72	0,57	10	26								26	26	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	5,52	0,31	5,6	7	0	CVPG	5,68	0,12	16%	4,77	6,59	7		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	6,04	0,33	5,4	13	0	CVPG	5,8	0,032	16%	4,87	6,73	13		
Other					6	0							6		
		2x 4/1, 4x 4/179													
(191) PSA					27								27	26	96%
Samples and groups		[µg/L]													
Sample A		2,19	0,21	9,5	27								27	27	100%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	2,40	0,15	6,2	7	0	CVPG	2,4	0,029	15%	2,04	2,76	7		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	2,21	0,063	2,9	13	0	CVPG	2,18	0,014	15%	1,85	2,51	13		
Other					7	0							7		
		1x 4/1, 4x 4/179, 2x 4/195													
Sample B		7,71	0,75	9,8	27								27	26	96%
(4) LIA (CLIA, CMIA, ECLIA); (12)	Beckman Coulter	8,54	0,54	6,3	7	0	CVPG	8,58	0,13	15%	7,29	9,87	7		
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	7,72	0,29	3,8	13	0	CVPG	7,53	0,045	15%	6,4	8,66	13		
Other					7	0							7		
		1x 4/1, 4x 4/179, 2x 4/195													
(194) NSE					21								21	21	100%
Samples and groups		[µg/L]													
Sample A		7,00	0,93	13	21								21	21	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	6,85	0,77	11	19	0	CVPG	6,77	0,12	30%	4,73	8,81	19		
Other					2	0							2		
		2x 3/24													
Sample B		8,22	0,77	9,3	21								21	21	100%
(4) LIA (CLIA, CMIA, ECLIA); (60)	Roche	8,09	0,65	8,0	19	0	CVPG	7,61	0,12	30%	5,32	9,9	19		
Other					2	0							2		
		2x 3/24													
(195) SCCA					12								12	11	92%
Samples and groups		[µg/L]													
Sample A		9,99	0,79	7,9	12								12	11	92%

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Test	[unit]	RoM	SD	CV [%]	N _{tot}	N _{out}	Comparability							
							AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}
(195) SCCA					12							12	11	92%
Samples and groups	[µg/L]													
Sample A		9,99	0,79	7,9	12							12	11	92%
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		10,4	1,0	10	5	0	CVPG	10,8	0,22	23%	8,31	13,3	5	
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		9,79	0,61	6,2	7	0	CVPG	9,72	0,24	23%	7,48	12	7	
Sample B		4,01	0,31	7,8	12							12	11	92%
(4) LIA (CLIA, CMIA, ECLIA); (1) Abbott		4,00	0,15	3,7	5	0	CVPG	4,15	0,068	23%	3,19	5,11	5	
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		4,02	0,42	10	7	0	CVPG	3,99	0,13	23%	3,07	4,91	7	
(196) TPA					1							1	0	0,00
Samples and groups	[U/L]													
Sample A		1700			1							1	0	0,00
Other					1	0						1		
							1x 4/164							
Sample B		1740			1							1	1	100%
Other					1	0						1		
							1x 4/164							
(198) free-PSA					20							20	19	95%
Samples and groups	[µg/L]													
Sample A		1,55	0,18	12	20							20	19	95%
(4) LIA (CLIA, CMIA, ECLIA); (12) Beckman Coulter		1,87	0,16	8,7	5	0	CVPG	1,97	0,039	16%	1,65	2,29	5	
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		1,47	0,13	8,6	9	0	CVPG	1,46	,0095	16%	1,22	1,7	9	
Other					6	0						6		
							1x 4/1, 3x 4/179, 2x 4/195							
Sample B		5,75	0,75	13	20							20	19	95%
(4) LIA (CLIA, CMIA, ECLIA); (12) Beckman Coulter		6,91	0,90	13	5	0	CVPG	7,11	0,12	16%	5,97	8,25	5	
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		5,30	0,39	7,3	9	0	CVPG	5,28	0,040	16%	4,43	6,13	9	
Other					6	0						6		
							1x 4/1, 3x 4/179, 2x 4/195							
(201) S-100					6							4	4	100%
Samples and groups	[µg/L]													
Sample A		0,091	0,013	14	6							4	4	100%
Other					6	0						4		
							2x 2/98, 4x 4/60							
Sample B		0,045	0,015	33	6							4	4	100%
Other					6	0						4		
							2x 2/98, 4x 4/60							
(206) Calcitonin					8							6	6	100%
Samples and groups	[ng/L]													
Sample A		43,3	6,0	14	8							6	6	100%
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		42,7	1,1	2,6	5	0	CVPG	44,1	0,84	27%	32,1	56,1	5	
Other					3	0						1		
							2x 1/24, 1x 4/29							
Sample B		7,95	1,2	15	8							6	6	100%
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		8,56	0,28	3,3	5	0	CVPG	8,73	0,15	27%	6,37	11,1	5	
Other					3	0						1		
							2x 1/24, 1x 4/29							
(207) Thyreoglobulin					11							11	11	100%
Samples and groups	[µg/L]													
Sample A		51,6	13	25	11							11	11	100%
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		62,6	2,9	4,7	5	0	CVPG	62,8	0,78	30%	43,9	81,7	5	
Other					6	0						6		
							2x 3/24, 3x 4/12, 1x 4/29							
Sample B		8,30	3,7	44	11							11	11	100%
(4) LIA (CLIA, CMIA, ECLIA); (60) Roche		11,6	0,89	7,7	5	0	CVPG	11,7	0,14	30%	8,19	15,3	5	
Other					6	0						6		
							2x 3/24, 3x 4/12, 1x 4/29							
(208) beta-2-microglobulin					15							15	14	93%
Samples and groups	[mg/L]													
Sample A		2,63	0,25	9,5	15							15	15	100%
(6) IMT, IMN; (60) Roche		2,71	0,076	2,8	5	0	CVPG	2,69	0,036	21%	2,12	3,26	5	
Other					10	0						10		
							2x 1/36, 1x 4/60, 1x 6/1, 4x 6/58, 1x 6/91, 1x 6/149							
Sample B		2,90	0,30	10	15							15	14	93%
(6) IMT, IMN; (60) Roche		3,01	0,089	3,0	5	0	CVPG	2,95	0,038	21%	2,33	3,57	5	
Other					10	0						10		
							2x 1/36, 1x 4/60, 1x 6/1, 4x 6/58, 1x 6/91, 1x 6/149							

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Filter: Slovakia, minimal size of groups n = 5

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Test	[unit]	RoM	SD	CV [%]	N _{tot}	N _{out}	Comparability						
							AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}
(205) Chromogranin A					4						2	2	100%
Samples and groups	[µg/L]												
Sample A		56,5	31	55	4						2	2	100%
Other					4	0					2		
							2x	2/66, 2x	3/24				
Sample B		73,9	46	63	4						2	2	100%
Other					4	0					2		
							2x	2/66, 2x	3/24				
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End of report

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