

Summary statistics - quantitative results

(Groups: manufacturer of kit)

Filter: minimal size of the groups n = 5

Deadline: 29.04.2022

EQA round: TDM1/22 - Therapeutic Drugs

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 the 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										Traceability												
		RoM	SD	CV [%]	N _{tot}	N _{out}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}		
Set 1																								
(81) Digoxin					133																133	129	97%	
Samples and groups		[µg/L]																						
Sample A1					133																133	132	99%	
(1) Abbott		2,13	0,25	12	133									CRV	2,15	0,020	36%	1,37	2,93					
(12) Beckman Coulter		1,89	0,17	8,9	44	0															44			
(58) Beckman Coulter (AU)		2,35	0,19	8,3	13	0															13			
(60) Roche		2,31	0,21	9,0	5	0															5			
(162) Siemens (Atellica)		2,17	0,12	5,5	47	0															47			
(179) Siemens		2,31	0,16	6,8	9	0															9			
Other		2,37	0,32	13	7	0															7			
					8	0															8			
														2x 29, 2x 75, 4x 149										
Sample B1		1,02	0,18	18	133									CRV	1,03	0,0100	36%	0,659	1,41		133	130	98%	
(1) Abbott		0,854	0,12	14	44	0															44			
(12) Beckman Coulter		1,15	0,07	6,2	13	0															13			
(58) Beckman Coulter (AU)		1,08	0,10	9,6	5	0															5			
(60) Roche		1,09	0,09	8,7	47	0															47			
(162) Siemens (Atellica)		1,18	0,13	11	9	1															9			
(179) Siemens		1,19	0,17	14	7	0															7			
Other					8	0															8			
														2x 29, 2x 75, 4x 149										
(87) Ethosuximide					8																	8	7	88%
Samples and groups		[mg/L]																						
Sample A1		24,6	2,7	11	8	CVP	24,6	2,1	24%	18,6	30,6										8	7	88%	
(999) another manufacturer		24,6	2,6	11	7	0															7			
Other					1	0															1			
Sample B1		90,1	14	16	8	CVP	90,1	11	24%	68,4	112										8	7	88%	
(999) another manufacturer		93,9	8,4	8,9	7	0															7			
Other					1	0															1			
														1x 998										
(84) Phenobarbital					27																	27	24	89%
Samples and groups		[mg/L]																						
Sample A1		8,99	1,0	11	27	CVP	8,99	0,47	20%	7,19	10,8										27	24	89%	
(1) Abbott		8,75	0,90	10	12	0															12			
(60) Roche		9,07	1,3	14	7	0															7			
Other					8	0															8			
														1x 75, 1x 162, 1x 179, 1x 998, 4x 999										
Sample B1		24,9	1,9	7,5	27	CVP	24,9	0,88	20%	19,9	29,9										27	26	96%	
(1) Abbott		25,1	2,4	9,7	12	0															12			
(60) Roche		24,7	0,96	3,9	7	0															7			

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		RoM	SD	CV [%]	N _{tot}	N _{out}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}		
(84) Phenobarbital	[mg/L]				27							27	24	89%									0	
Samples and groups																								
Sample B1		24,9	1,9	7,5	27	CVP	24,9	0,88	20%	19,9	29,9	27	26	96%									0	
Other					8	0						8												
							1x 75, 1x 162, 1x 179, 1x 998, 4x 999																	
(85) Phenytoin	[mg/L]				43							43	42	98%								0		
Samples and groups																								
Sample A1		3,91	0,34	8,6	43	CVP	3,91	0,13	20%	3,12	4,7	43	42	98%									0	
(1) Abbott		4,07	0,33	8,2	14	0						14												
(60) Roche		3,77	0,29	7,6	15	0						15												
Other					14	0						14												
							3x 29, 2x 58, 1x 149, 1x 162, 2x 179, 1x 998, 4x 999																	
Sample B1		9,56	0,68	7,1	43	CVP	9,56	0,26	20%	7,64	11,5	43	42	98%									0	
(1) Abbott		9,71	0,86	8,8	14	0						14												
(60) Roche		9,43	0,45	4,8	15	0						15												
Other					14	0						14												
							3x 29, 2x 58, 1x 149, 1x 162, 2x 179, 1x 998, 4x 999																	
(86) Carbamazepin	[mg/L]				63							63	58	92%								0		
Samples and groups																								
Sample A1		3,45	0,35	10	63	CVP	3,45	0,11	20%	2,76	4,14	63	59	94%									0	
(1) Abbott		3,40	0,34	9,8	21	0						21												
(29) Siemens (Immulin)		2,98	0,27	9,0	5	0						5												
(60) Roche		3,53	0,31	8,9	19	0						19												
(999) another manufacturer		3,42	0,35	10	5	0						5												
Other					13	0						13												
							1x 12, 3x 58, 1x 75, 3x 149, 1x 162, 3x 179, 1x 998																	
Sample B1		10,0	0,85	8,5	63	CVP	10	0,26	20%	8	12	63	59	94%									0	
(1) Abbott		9,61	0,53	5,5	21	0						21												
(29) Siemens (Immulin)		9,12	0,37	4,1	5	0						5												
(60) Roche		10,6	0,45	4,2	19	0						19												
(999) another manufacturer		10,1	0,78	7,7	5	0						5												
Other					13	0						13												
							1x 12, 3x 58, 1x 75, 3x 149, 1x 162, 3x 179, 1x 998																	
(88) Valproic acid	[mg/L]				87							87	84	97%								0		
Samples and groups																								
Sample A1		127	8,4	6,7	87	CVP	127	2,2	20%	101	153	87	86	99%									0	
(1) Abbott		122	6,4	5,3	34	0						34												
(29) Siemens (Immulin)		132	10	7,7	6	0						6												
(58) Beckman Coulter (AU)		135	3,6	2,7	5	0						5												
(60) Roche		127	5,3	4,1	30	0						30												
Other					12	0						12												
							2x 12, 1x 75, 3x 149, 2x 162, 4x 179																	
Sample B1		35,1	2,6	7,4	87	CVP	35,1	0,68	20%	28	42,2	87	85	98%									0	
(1) Abbott		33,9	2,3	6,9	34	0						34												
(29) Siemens (Immulin)		31,5	5,2	16	6	0						6												
(58) Beckman Coulter (AU)		37,3	3,6	9,8	5	0						5												
(60) Roche		35,2	1,4	4,0	30	0						30												

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Test	[unit]	Comparability										Traceability										
		RoM	SD	CV [%]	N _{tot}	N _{out}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}
(88) Valproic acid	[mg/L]											87	84	97%								
--- Samples and groups	[mg/L]											87	84	97%								
Sample B1		35,1	2,6	7,4	87	0	CVP	35,1	0,68	20%	28	42,2	87	85	98%							
Other						12	0						12									
2x 12, 1x 75, 3x 149, 2x 162, 4x 179																						
(83) Primidone	[mg/L]											9	8	89%								
--- Samples and groups	[mg/L]											9	8	89%								
Sample A1		4,08	0,41	10	9	0	CVP	4,08	0,50	24%	3,1	5,06	9	8	89%							
(999) another manufacturer		3,95	0,73	18	6	0						6										
Other						3	0						3									
1x 60, 2x 998																						
Sample B1		9,56	0,80	8,4	9	0	CVP	9,56	0,99	24%	7,26	11,9	9	9	100%							
(999) another manufacturer		9,80	0,44	4,5	6	0						6										
Other						3	0						3									
1x 60, 2x 998																						
(82) Theophylline	[mg/L]											84	80	95%								
--- Samples and groups	[mg/L]											84	80	95%								
Sample A1		18,3	1,4	7,6	84	0						0	CRV	18,39	0,18	24%	13,9	22,9	84	82	98%	
(1) Abbott		17,3	1,8	10	28	0																
(58) Beckman Coulter (AU)		17,9	0,64	3,6	5	0																
(60) Roche		18,7	0,88	4,7	32	0																
(162) Siemens (Atellica)		18,4	0,30	1,6	5	0																
(179) Siemens		20,9	1,1	5,3	6	0																
Other						8	0															
3x 12, 3x 29, 1x 149, 1x 166																						
Sample B1		22,4	1,8	8,2	84	0						0	CRV	22,58	0,23	24%	17,1	28	84	81	96%	
(1) Abbott		21,1	2,6	12	28	0																
(58) Beckman Coulter (AU)		21,1	2,3	11	5	0																
(60) Roche		22,9	0,98	4,3	32	0																
(162) Siemens (Atellica)		22,5	0,37	1,7	5	0																
(179) Siemens		25,9	2,1	8,3	6	0																
Other						8	0															
3x 12, 3x 29, 1x 149, 1x 166																						
Set 2																						
(89) Amicacin	[mg/L]											37	35	95%								
--- Samples and groups	[mg/L]											37	35	95%								
Sample A2		35,6	3,0	8,3	37	0	CVP	35,6	1,2	20%	28,4	42,8	37	35	95%							
(1) Abbott		38,3	2,2	5,8	7	0																
(60) Roche		35,2	2,5	7,1	21	0																
Other						9	0															
1x 12, 2x 149, 1x 162, 2x 166, 3x 179																						
Sample B2		9,50	0,74	7,8	37	0	CVP	9,5	0,30	20%	7,6	11,4	37	36	97%							
(1) Abbott		10,1	0,56	5,6	7	0																
(60) Roche		9,32	0,49	5,3	21	0																
Other						9	0															
1x 12, 2x 149, 1x 162, 2x 166, 3x 179																						

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		RoM	SD	CV [%]	N _{tot}	N _{out}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}	
(90) Gentamicin					67							67	65	97%							0		
Samples and groups	[mg/L]																						
Sample A2		9,11	1,8	19	67							67	65	97%							0		
(6) Immunoturbidimetry, KIMS; (60) Roche		6,32	0,52	8,2	12	0	CVPG	6,32	0,37	21%	4,99	7,65		12									
(1) Abbott		9,82	0,64	6,5	25	0	CVP	9,6	0,36	31%	6,62	12,6		25									
(60) Roche		8,47	0,68	8,0	14	0	CVP	9,6	0,36	31%	6,62	12,6		14									
(179) Siemens		10,8	0,30	2,7	5	0	CVP	9,6	0,36	31%	6,62	12,6		5									
Other					11	0								11									
								3x 12, 3x 58, 2x 149, 3x 162															
Sample B2		6,74	1,2	18	67							67	66	99%							0		
(6) Immunoturbidimetry, KIMS; (60) Roche		4,95	0,37	7,4	12	0	CVPG	4,95	0,26	21%	3,91	5,99		12									
(1) Abbott		7,27	0,46	6,3	25	0	CVP	7,11	0,28	31%	4,9	9,32		25									
(60) Roche		6,20	0,29	4,7	14	0	CVP	7,11	0,28	31%	4,9	9,32		14									
(179) Siemens		8,23	0,56	6,8	5	0	CVP	7,11	0,28	31%	4,9	9,32		5									
Other					11	0								11									
								3x 12, 3x 58, 2x 149, 3x 162															
(93) Methotrexate					11							11	9	82%							0		
Samples and groups	[µmol/L]																						
Sample A2		2,18	0,28	13	11		CVP	2,18	0,20	30%	1,52	2,84		11	10	91%				0			
(1) Abbott		2,18	0,32	15	10	0								10									
Other					1	0								1									
								1x 999															
Sample B2		1,20	0,15	12	11		CVP	1,2	0,11	30%	0,84	1,56		11	9	82%				0			
(1) Abbott		1,20	0,17	14	10	0								10									
Other					1	0								1									
								1x 999															
(92) Vankomycin					69							69	68	99%							0		
Samples and groups	[mg/L]																						
Sample A2		14,1	1,3	9,5	69		CVP	14,1	0,40	28%	10,1	18,1		69	69	100%				0			
(1) Abbott		15,0	0,88	5,9	27	0								27									
(60) Roche		13,6	1,2	9,1	26	0								26									
Other					16	0								16									
								1x 9, 3x 12, 2x 58, 3x 149, 3x 162, 4x 179															
Sample B2		16,4	1,7	10	69		CVP	16,4	0,49	28%	11,8	21		69	68	99%				0			
(1) Abbott		17,4	1,1	6,3	27	0								27									
(60) Roche		16,0	1,5	9,2	26	0								26									
Other					16	0								16									
								1x 9, 3x 12, 2x 58, 3x 149, 3x 162, 4x 179															

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End of report

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