

EQA round: TDM1/26 - Therapeutic Drugs

Deadline: 24.4.2026

Setup: groups - M (measurement principle); minimal size of the groups n = 5

RoM = robust average	AV = assigned value	D _{max} = acceptable difference
SD = standard deviation	CVP = consensus of all participants	LL = lower limit
CV = coefficient of variation	CVPG = consensus of the participants' groups	UL = upper limit
N _{tot} = total number of the results	U _{AV} = expanded uncertainty of the assigned value (k = 2)	N _{eva} = number of the results assessed
N _{out} = number of the results removed before calculation		N _{suc} = number of successful results
		S _{rel} = relative success

Test Sample Group	[unit]	RoM	SD	CV [%]	N _{tot}	N _{out}	Comparability					N _{eva}	N _{suc}	S _{rel} [%]	
							AV	U _{AV}	D _{max}	LL	UL				
Set 1															
(81) Digoxin	[µg/L]				126							126	124	98	
Sample A1		1,67	0,15	8,7	126		CVP	1,67	0,032	30%	1,16	2,18	126	125	99
(2) EIA (EMIT, CEDIA)		1,7	0,19	11	12	0							12		
(4) LIA, ILMA		1,66	0,21	12	60	0							60		
(6) Immunoturbidimetry, KIMS		1,67	0,096	5,7	53	0							53		
Other					1	0							1		
							1x 99								
Sample B1		1,1	0,13	12	126		CVP	1,1	0,029	30%	0,77	1,43	126	125	99
(2) EIA (EMIT, CEDIA)		1,11	0,22	19	12	0							12		
(4) LIA, ILMA		1,09	0,17	15	60	0							60		
(6) Immunoturbidimetry, KIMS		1,11	0,1	9,2	53	0							53		
Other					1	0							1		
							1x 99								
(87) Ethosuximide	[mg/L]				7							7	6	86	
Sample A1		87,4	4,2	4,8	7		CVP	87,4	4,1	24%	66,4	109	7	6	86
Other					7	0							7		
							3x 3, 4x 5								
Sample B1		54,6	7,6	14	7		CVP	54,6	7,3	24%	41,4	67,8	7	6	86
Other					7	0							7		
							3x 3, 4x 5								
(84) Phenobarbital	[mg/L]				22							22	21	95	
Sample A1		14,8	0,93	6,3	22		CVP	14,8	0,49	20%	11,8	17,8	22	22	100
(6) Immunoturbidimetry, KIMS		14,6	0,52	3,6	7	0							7		
Other					15	0							15		
							1x 1, 3x 2, 4x 3, 4x 4, 3x 5								
Sample B1		19	0,95	5	22		CVP	19	0,5	20%	15,2	22,8	22	21	95
(6) Immunoturbidimetry, KIMS		19	0,82	4,3	7	0							7		
Other					15	0							15		
							1x 1, 3x 2, 4x 3, 4x 4, 3x 5								
(85) Phenytoin	[mg/L]				28							28	27	96	
Sample A1		20	1,3	6,7	28		CVP	20	0,63	20%	16	24	28	27	96
(2) EIA (EMIT, CEDIA)		19,7	0,96	4,9	6	0							6		
(4) LIA, ILMA		19	0,31	1,6	5	0							5		
(6) Immunoturbidimetry, KIMS		20,1	1,3	6,3	9	1							9		
Other					8	0							8		
							2x 1, 3x 3, 3x 5								
Sample B1		23,1	1,6	6,9	28		CVP	23,1	0,76	20%	18,4	27,8	28	27	96
(2) EIA (EMIT, CEDIA)		22,9	0,82	3,6	6	0							6		
(4) LIA, ILMA		21,6	0,89	4,1	5	0							5		
(6) Immunoturbidimetry, KIMS		23,8	1,3	5,6	9	1							9		
Other					8	0							8		
							2x 1, 3x 3, 3x 5								
(86) Carbamazepin	[mg/L]				47							47	42	89	
Sample A1		8,95	0,82	9,2	47		CVP	8,95	0,3	20%	7,16	10,8	47	44	94
(2) EIA (EMIT, CEDIA)		9,14	0,79	8,7	11	0							11		
(4) LIA, ILMA		8,45	0,77	9,1	13	0							13		
(6) Immunoturbidimetry, KIMS		9	0,69	7,6	18	1							18		
Other					5	0							5		
							2x 3, 3x 5								
Sample B1		10,4	0,97	9,3	47		CVP	10,4	0,35	20%	8,32	12,5	47	42	89
(2) EIA (EMIT, CEDIA)		10,8	0,62	5,7	11	0							11		
(4) LIA, ILMA		10,1	1	10	13	0							13		
(6) Immunoturbidimetry, KIMS		10,3	0,88	8,5	18	1							18		
Other					5	0							5		
							2x 3, 3x 5								
(88) Valproic acid	[mg/L]				83							83	81	98	
Sample A1		39,7	3	7,6	83		CVP	39,7	0,82	20%	31,7	47,7	83	81	98
(2) EIA (EMIT, CEDIA)		40,5	3,1	7,6	28	0							28		
(4) LIA, ILMA		38,6	2,2	5,6	23	0							23		
(6) Immunoturbidimetry, KIMS		39,8	3,5	8,8	29	0							29		
Other					3	0							3		
							2x 1, 1x 5								

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							AV	U _{AV}	D _{max}	LL	UL				
Sample B2		0,177	0,013	7,2	12		CVP	0,177	0,009	30%	0,123	0,231	12	12	100
(4) LIA, ILMA		0,18	0,014	7,9	8	0							8		
Other					4	0							4		
							2x 2, 1x 5, 1x 6								
(92) Vankomycin	[mg/L]				77								77	73	95
Sample A2		21,3	1,3	6,3	77		CVP	21,3	0,37	28%	15,3	27,3	77	76	99
(2) EIA (EMIT, CEDIA)		20,1	1,4	6,8	18	0							18		
(4) LIA, ILMA		23	1,1	4,6	14	0							14		
(6) Immunoturbidimetry, KIMS		21,3	0,79	3,7	42	0							42		
Other					3	0							3		
							2x 1, 1x 5								
Sample B2		3,99	0,25	6,3	77		CVP	3,99	0,07	28%	2,87	5,11	77	73	95
(2) EIA (EMIT, CEDIA)		4,3	0,67	16	18	0							18		
(4) LIA, ILMA		3,91	0,28	7,2	14	0							14		
(6) Immunoturbidimetry, KIMS		3,98	0,19	4,7	42	0							42		
Other					3	1							3		
							2x 1, 1x 5								