

EQA round: TDM1/26 - Therapeutic Drugs

Deadline: 24.4.2026

Setup: groups - M (measurement principle); Slovakia; 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	U _{AV} = expanded uncertainty of the assigned value (k = 2)	UL = upper limit
N _{tot} = total number of the results		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]				14								14	12	86
Sample A1		1,65	0,16	9,9	14		CVP	1,67	0,032	30%	1,16	2,18	14	13	93
(4) LIA, ILMA		1,59	0,27	17	7	0							7		
Other					7	0							7		
							4x 2, 3x 6								
Sample B1		1,06	0,13	13	14		CVP	1,1	0,029	30%	0,77	1,43	14	13	93
(4) LIA, ILMA		1	0,19	19	7	0							7		
Other					7	0							7		
							4x 2, 3x 6								
(84) Phenobarbital	[mg/L]				5								5	5	100
Sample A1		14,1	0,089	0,63	5		CVP	14,8	0,49	20%	11,8	17,8	5	5	100
Other					5	0							5		
							2x 2, 1x 3, 1x 4, 1x 6								
Sample B1		18,6	0,87	4,7	5		CVP	19	0,5	20%	15,2	22,8	5	5	100
Other					5	0							5		
							2x 2, 1x 3, 1x 4, 1x 6								
(85) Phenytoin	[mg/L]				1								1	1	100
Sample A1		20,3			1		CVP	20	0,63	20%	16	24	1	1	100
Other					1	0							1		
							1x 2								
Sample B1		23,1			1		CVP	23,1	0,76	20%	18,4	27,8	1	1	100
Other					1	0							1		
							1x 2								
(86) Carbamazepin	[mg/L]				7								7	5	71
Sample A1		8,27	1,3	15	7		CVP	8,95	0,3	20%	7,16	10,8	7	6	86
Other					7	0							7		
							3x 2, 1x 4, 3x 6								
Sample B1		9,1	2,1	23	7		CVP	10,4	0,35	20%	8,32	12,5	7	5	71
Other					7	0							7		
							3x 2, 1x 4, 3x 6								
(88) Valproic acid	[mg/L]				11								11	10	91
Sample A1		39,6	4,1	10	11		CVP	39,7	0,82	20%	31,7	47,7	11	10	91
(2) EIA (EMIT, CEDIA)		41,5	0,84	2	5	0							5		
Other					6	0							6		
							2x 4, 4x 6								
Sample B1		97,8	8	8,1	11		CVP	96,7	1,3	20%	77,3	117	11	11	100
(2) EIA (EMIT, CEDIA)		102	5,7	5,6	5	0							5		
Other					6	0							6		
							2x 4, 4x 6								
(91) Lithium	[mmol/L]				6								6	5	83
Sample A1		0,592	0,027	4,6	6	0	CVP	0,611	0,018	12%	0,537	0,685	6	6	100
(5) Spectrophotometry													6		
Sample B1		0,5	0,03	5,9	6	0	CVP	0,513	0,02	12%	0,451	0,575	6	5	83
(5) Spectrophotometry													6		
(82) Theophylline	[mg/L]				3								3	2	67
Sample A1		7,75	0,82	11	3		CVP	7,5	0,11	19%	6,07	8,93	3	3	100
Other					3	0							3		
							2x 2, 1x 4								
Sample B1		17,3	1,8	11	3		CVP	16,5	0,28	19%	13,3	19,7	3	2	67
Other					3	0							3		
							2x 2, 1x 4								
Set 2															
(89) Amicacin	[mg/L]				8								8	6	75
Sample A2		30,4	5,7	19	8		CVP	30,3	1,1	20%	24,2	36,4	8	7	88
(2) EIA (EMIT, CEDIA)		30,4	5,7	19	5	0							5		
Other					3	0							3		
							3x 6								
Sample B2		23,1	5,3	23	8		CVP	23,8	0,75	20%	19	28,6	8	7	88
(2) EIA (EMIT, CEDIA)		24	4	17	5	0							5		
Other					3	0							3		
							3x 6								

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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			
(90) Gentamicin	[mg/L]				13							13	11	85
Sample A2		11,1	2,1	19	13							13	13	100
(2) EIA (EMIT, CEDIA)		11,7	1,5	13	6	0	CVP	11,7	0,36	31%	8,07	15,4	6	
Other					7	0							7	
								3x 4, 2x 6, 2x 6/60						
Sample B2		12	2,4	20	13							13	11	85
(2) EIA (EMIT, CEDIA)		13,2	1,4	11	6	0	CVP	12,8	0,47	31%	8,83	16,8	6	
Other					7	0							7	
								3x 4, 2x 6, 2x 6/60						
(93) Methotrexate	[µmol/L]				4							4	3	75
Sample A2		0,737	0,23	31	4		CVP	0,669	0,049	30%	0,468	0,87	4	3
Other					4	0							4	
								1x 2, 3x 4						
Sample B2		0,176	0,025	14	4		CVP	0,177	0,009	30%	0,123	0,231	4	4
Other					4	0							4	100
								1x 2, 3x 4						
(92) Vankomycin	[mg/L]				15							15	13	87
Sample A2		21,7	1,7	7,9	15		CVP	21,3	0,37	28%	15,3	27,3	15	15
(2) EIA (EMIT, CEDIA)		20,3	0,93	4,6	6	0							6	
(6) Immunoturbidimetry, KIMS		21,5	0,44	2,1	5	0							5	
Other					4	0							4	
								4x 4						
Sample B2		3,99	0,31	7,7	15		CVP	3,99	0,07	28%	2,87	5,11	15	13
(2) EIA (EMIT, CEDIA)		4,49	1,3	29	6	0							6	
(6) Immunoturbidimetry, KIMS		3,95	0,22	5,6	5	0							5	
Other					4	0							4	
								4x 4						