

## Summary statistics - quantitative results

(Groups: measurement principle)

Filter: minimal size of groups n = 5

## EQA round: TDM2/18 - Therapeutic Drugs

Dead line: 12.10.2018

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 <sub>AV</sub> = expanded uncertainty of the assigned value (k = 2)	

Test	[unit]	Comparability					Traceability												
		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>Set of samples 1</b>																			
<b>(81) Digoxin</b>					125														
Samples and groups		[nmol/L]																	
<b>Sample A1</b>		1,58	0,22	14	125														
(1) FIA, FPIA, DELFIA		1,65	0,22	13	6	0					CRV	1,583	0,016	36%	1,01 2,16	125	125	100%	
(2) EIA (EMIT, CEDIA)		1,50	0,24	16	8	0													
(4) LIA, ILMA		1,55	0,27	17	69	0													
(6) Immunoturbidimetry		1,61	0,11	6,6	42	0													
<b>Sample B1</b>		2,71	0,31	12	125														
(1) FIA, FPIA, DELFIA		2,73	0,25	9,2	6	0													
(2) EIA (EMIT, CEDIA)		2,64	0,30	12	8	0													
(4) LIA, ILMA		2,68	0,39	14	69	0													
(6) Immunoturbidimetry		2,78	0,19	6,8	42	0													
<b>(82) Theophylline</b>					88														
Samples and groups		[µmol/L]																	
<b>Sample A1</b>		36,8	2,6	7,2	88														
(1) FIA, FPIA, DELFIA		38,9	2,2	5,6	15	0													
(2) EIA (EMIT, CEDIA)		36,1	3,0	8,3	8	0													
(4) LIA, ILMA		36,4	2,4	6,5	37	0													
(6) Immunoturbidimetry		36,2	2,2	6,2	27	0													
Other					1	0													
<b>Sample B1</b>					88														
(1) FIA, FPIA, DELFIA		74,9	4,6	6,2	15	0													
(2) EIA (EMIT, CEDIA)		71,8	3,5	4,9	8	0													
(4) LIA, ILMA		74,7	5,9	7,9	37	0													
(6) Immunoturbidimetry		74,7	3,3	4,4	27	0													
Other					1	0													
<b>(83) Primidone</b>					9														
Samples and groups		[µmol/L]																	
<b>Sample A1</b>		51,1	5,5	11	9		CVP	51,1	6,8	24%	38,8	63,4	9	8	89%				
(3) HPLC, GC		51,8	5,8	11	6	0							6						
Other					3	0							3						
<b>Sample B1</b>					9														
(3) HPLC, GC		85,1	5,6	6,5	6	0							6						
Other					3	0							3						

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		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>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>	
<b>(84) Phenobarbital</b>					27							27	26	96%									0
Samples and groups	[µmol/L]																						
<b>Sample A1</b>		47,8	4,0	8,3	27	CVP	47,8	1,9	20%	38,2	57,4	27	26	96%									0
(1) FIA, FPIA, DELFIA		47,4	0,79	1,7	6							6											
(4) LIA, ILMA		50,4	3,3	6,5	10							10											
(6) Immunoturbidimetry		45,3	1,3	2,8	5							5											
Other					6							6											
<b>Sample B1</b>		128	8,4	6,6	27	CVP	128	4,0	20%	102	154	27	27	100%									0
(1) FIA, FPIA, DELFIA		122	2,7	2,2	6							6											
(4) LIA, ILMA		135	9,1	6,7	10							10											
(6) Immunoturbidimetry		127	3,0	2,3	5							5											
Other					6							6											
<b>(85) Phenytoin</b>					47							47	42	89%									0
Samples and groups	[µmol/L]																						
<b>Sample A1</b>		75,8	4,9	6,5	47	CVP	75,8	1,8	20%	60,6	91	47	46	98%									0
(1) FIA, FPIA, DELFIA		76,5	5,7	7,5	9							9											
(3) HPLC, GC		74,4	5,3	7,1	5							5											
(4) LIA, ILMA		75,2	5,0	6,6	19							19											
(6) Immunoturbidimetry		75,2	3,8	5,0	12							12											
Other					2							2											
<b>Sample B1</b>		12,2	1,2	9,6	47	CVP	12,2	0,42	20%	9,76	14,7	47	43	91%									0
(1) FIA, FPIA, DELFIA		11,8	0,37	3,2	9							9											
(3) HPLC, GC		12,2	1,4	11	5							5											
(4) LIA, ILMA		12,2	1,1	9,0	19							19											
(6) Immunoturbidimetry		12,5	1,2	9,8	12							12											
Other					2							2											
<b>(86) Carbamazepin</b>					63							63	61	97%									0
Samples and groups	[µmol/L]																						
<b>Sample A1</b>		33,9	2,2	6,5	63	CVP	33,9	0,68	20%	27,1	40,7	63	63	100%									0
(1) FIA, FPIA, DELFIA		33,7	0,67	2,0	8							8											
(2) EIA (EMIT, CEDIA)		36,1	2,6	7,2	9							9											
(3) HPLC, GC		34,9	1,3	3,8	5							5											
(4) LIA, ILMA		33,5	2,3	7,0	26							26											
(6) Immunoturbidimetry		33,3	2,1	6,3	15							15											
<b>Sample B1</b>		31,6	2,3	7,4	63	CVP	31,6	0,72	20%	25,2	38	63	61	97%									0
(1) FIA, FPIA, DELFIA		31,1	1,1	3,5	8							8											
(2) EIA (EMIT, CEDIA)		32,6	1,8	5,5	9							9											
(3) HPLC, GC		33,3	0,73	2,2	5							5											
(4) LIA, ILMA		31,1	3,1	9,8	26							26											
(6) Immunoturbidimetry		31,2	1,9	6,2	15							15											
<b>(87) Ethosuximide</b>					9							9	8	89%									0
Samples and groups	[µmol/L]																						
<b>Sample A1</b>		572	51	8,8	9	CVP	572	62	24%	434	710	9	8	89%									0

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Test	[unit]	Comparability										Traceability											
		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>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>	
<b>(87) Ethosuximide</b>					9							9	8	89%									0
Samples and groups	[µmol/L]																						
<b>Sample A1</b>		572	51	8,8	9	CVP	572	62	24%	434	710	9	8	89%									0
(3) HPLC, GC		582	36	6,1	6							6											
Other					3							3											
<b>Sample B1</b>		599	62	10	9	CVP	599	76	24%	455	743	9	8	89%									0
(3) HPLC, GC		610	46	7,5	6							6											
Other					3							3											
<b>(88) Valproic acid</b>					80							80	79	99%									0
Samples and groups	[µmol/L]																						
<b>Sample A1</b>		249	19	7,6	80	CVP	249	5,2	20%	199	299	80	80	100%									0
(1) FIA, FPIA, DELFIA		250	9,9	3,9	15							15											
(2) EIA (EMIT, CEDIA)		259	21	8,2	18							18											
(4) LIA, ILMA		240	16	6,6	34							34											
(6) Immunoturbidimetry		261	21	8,1	13							13											
<b>Sample B1</b>		388	26	6,7	80	CVP	388	7,1	20%	310	466	80	79	99%									0
(1) FIA, FPIA, DELFIA		387	15	3,8	15							15											
(2) EIA (EMIT, CEDIA)		407	28	6,8	18							18											
(4) LIA, ILMA		372	26	7,0	34							34											
(6) Immunoturbidimetry		407	33	8,1	13							13											
<b>Set of samples 2</b>																							
<b>(89) Amicacin</b>					30							30	28	93%									0
Samples and groups	[µmol/L]																						
<b>Sample A2</b>		10,3	0,89	8,6	30	CVP	10,3	0,40	20%	8,24	12,4	30	29	97%									0
(1) FIA, FPIA, DELFIA		10,6	1,1	10	8							8											
(6) Immunoturbidimetry		10,0	0,57	5,7	18							18											
Other					4							4											
<b>Sample B2</b>		29,6	1,2	4,2	30	CVP	29,6	0,55	20%	23,6	35,6	30	29	97%									0
(1) FIA, FPIA, DELFIA		29,1	1,6	5,4	8							8											
(6) Immunoturbidimetry		29,6	1,2	3,9	18							18											
Other					4							4											
<b>(90) Gentamicin</b>					55							55	47	85%									0
Samples and groups	[µmol/L]																						
<b>Sample A2</b>		21,7	4,1	19	55	CVP	21,7	1,4	31%	14,9	28,5	55	49	89%									0
(1) FIA, FPIA, DELFIA		21,7	3,7	17	12							12											
(2) EIA (EMIT, CEDIA)		18,3	3,7	20	5							5											
(4) LIA, ILMA		23,2	2,5	11	21							21											
(6) Immunoturbidimetry		20,1	5,8	29	17							17											
<b>Sample B2</b>		17,5	3,0	17	55	CVP	17,5	1,0	31%	12	23	55	49	89%									0
(1) FIA, FPIA, DELFIA		16,7	1,9	12	12							12											
(2) EIA (EMIT, CEDIA)		14,9	3,6	24	5							5											
(4) LIA, ILMA		19,0	1,2	6,4	21							21											
(6) Immunoturbidimetry		16,2	4,7	29	17							17											

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Test	[unit]	Comparability					Traceability																
		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>	AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>	
<b>(92) Vancomycin</b>					58							58	56	97%									0
Samples and groups	[µmol/L]																						
<b>Sample A2</b>		21,1	2,9	14	58	CVP	21,1	0,95	28%	15,1	27,1	58	56	97%									0
(1) FIA, FPIA, DELFIA		24,8	1,4	5,6	13							13											
(2) EIA (EMIT, CEDIA)		18,9	2,5	13	5							5											
(4) LIA, ILMA		20,1	2,4	12	27							27											
(6) Immunoturbidimetry		20,2	0,64	3,2	12							12											
Other					1							1											
						1x 99																	
<b>Sample B2</b>		9,38	1,0	11	58	CVP	9,38	0,32	28%	6,75	12,1	58	56	97%									0
(1) FIA, FPIA, DELFIA		10,3	0,66	6,4	13							13											
(2) EIA (EMIT, CEDIA)		8,70	0,52	6,0	5							5											
(4) LIA, ILMA		8,91	1,0	11	27							27											
(6) Immunoturbidimetry		9,39	0,55	5,8	12							12											
Other					1							1											
						1x 99																	
<b>(93) Methotrexate</b>					12							12	11	92%									0
Samples and groups	[µmol/L]																						
<b>Sample A2</b>		4,86	0,55	11	12	CVP	4,86	0,39	30%	3,4	6,32	12	11	92%									0
(4) LIA, ILMA		4,71	0,67	14	8							8											
Other					4							4											
						2x 2, 1x 5, 1x 6																	
<b>Sample B2</b>		3,11	0,42	14	12	CVP	3,11	0,30	30%	2,17	4,05	12	11	92%									0
(4) LIA, ILMA		3,12	0,33	10	8							8											
Other					4							4											
						2x 2, 1x 5, 1x 6																	

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End of report

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