

Summary statistics - quantitative results

(Groups: system)

Filter: minimal size of the groups n = 5

EQA round: ABR2/22 - Acid-base Status and Electrolytes

Deadline: 29.07.2022

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							
		RoM	SD	CV [%]	N _{tot}	N _{out}	AV	U _{AV}	D _{max}	LL	UL	N _{eva}	N _{suc}	S _{rel}
(131) pH					83							83	83	100%
Samples and groups	[-]													
Sample A		7,35	0,0070	10	83	CVP	7,35	0,0021	0,8%	7,29	7,41	83	83	100%
(433) Radiometer ABL (series 700 and 800)		7,34	0,0050	0,06	42	0						42		
(449) Roche OMNI S1-6 / cobas b221		7,35	0,0120	0,16	8	0						8		
(452) Radiometer ABL 90		7,35	0,0060	0,08	20	0						20		
Other					13	0						13		
							1x 405, 1x 410, 1x 411, 1x 414, 1x 420, 1x 448, 1x 451, 4x 454, 2x 455							
Sample B		7,40	0,0070	0,09	83	CVP	7,4	0,0019	0,8%	7,34	7,46	83	83	100%
(433) Radiometer ABL (series 700 and 800)		7,40	0,0050	0,07	42	0						42		
(449) Roche OMNI S1-6 / cobas b221		7,40	0,0070	0,10	8	0						8		
(452) Radiometer ABL 90		7,40	0,0040	0,06	20	0						20		
Other					13	0						13		
							1x 405, 1x 410, 1x 411, 1x 414, 1x 420, 1x 448, 1x 451, 4x 454, 2x 455							
(132) pCO2					83							83	80	96%
Samples and groups	[kPa]													
Sample A		6,06	0,20	3,3	83	CVP	6,06	0,055	12%	5,33	6,79	83	82	99%
(433) Radiometer ABL (series 700 and 800)		5,97	0,12	1,9	42	1						42		
(449) Roche OMNI S1-6 / cobas b221		6,35	0,14	2,2	7	0						7		
(452) Radiometer ABL 90		6,15	0,076	1,2	20	0						20		
Other					14	0						14		
							1x 405, 1x 410, 1x 411, 1x 414, 1x 420, 1x 448, 1x 451, 4x 454, 2x 455, 1x 999							
Sample B		5,40	0,18	3,3	83	CVP	5,4	0,048	12%	4,75	6,05	83	81	98%
(433) Radiometer ABL (series 700 and 800)		5,32	0,11	2,0	42	0						42		
(449) Roche OMNI S1-6 / cobas b221		5,66	0,082	1,4	7	0						7		
(452) Radiometer ABL 90		5,50	0,069	1,2	20	0						20		
Other					14	0						14		
							1x 405, 1x 410, 1x 411, 1x 414, 1x 420, 1x 448, 1x 451, 4x 454, 2x 455, 1x 999							
(133) pO2					82							82	82	100%
Samples and groups	[kPa]													
Sample A		14,6	0,94	6,4	82	CVP	14,6	0,25	17%	12,1	17,1	82	82	100%
(433) Radiometer ABL (series 700 and 800)		14,8	0,56	3,8	42	0						42		
(449) Roche OMNI S1-6 / cobas b221		15,2	1,9	13	7	0						7		
(452) Radiometer ABL 90		13,8	0,88	6,4	20	0						20		
Other					13	0						13		
							1x 405, 1x 410, 1x 411, 1x 414, 1x 420, 1x 448, 1x 451, 4x 454, 2x 455							
Sample B		16,5	0,65	3,9	82	CVP	16,5	0,17	17%	13,6	19,4	82	82	100%
(433) Radiometer ABL (series 700 and 800)		16,5	0,37	2,2	42	0						42		
(449) Roche OMNI S1-6 / cobas b221		16,8	1,2	7,4	7	0						7		
(452) Radiometer ABL 90		16,1	0,73	4,5	20	0						20		
Other					13	0						13		
							1x 405, 1x 410, 1x 411, 1x 414, 1x 420, 1x 448, 1x 451, 4x 454, 2x 455							
(134) Sodium cation (ISE)					63							63	61	97%
Samples and groups	[mmol/L]													
Sample A		135	1,5	1,1	63	CVP	135	0,46	5%	128	142	63	62	98%
(433) Radiometer ABL (series 700 and 800)		135	1,30	0,93	28	0						28		
(449) Roche OMNI S1-6 / cobas b221		135	1,5	1,1	5	0						5		
(452) Radiometer ABL 90		136	0,690	0,51	19	0						19		
Other					11	0						11		
							2x 410, 1x 411, 1x 420, 4x 454, 2x 455, 1x 999							
Sample B		144	1,8	1,2	63	CVP	144	0,55	5%	136	152	63	62	98%
(433) Radiometer ABL (series 700 and 800)		144	1,40	0,96	28	0						28		
(449) Roche OMNI S1-6 / cobas b221		143	2,0	1,4	5	0						5		
(452) Radiometer ABL 90		145	0,770	0,53	19	0						19		
Other					11	0						11		
							2x 410, 1x 411, 1x 420, 4x 454, 2x 455, 1x 999							
(135) Potassium cation (ISE)					64							64	63	98%
Samples and groups	[mmol/L]													
Sample A		3,29	0,092	2,8	64	CVP	3,29	0,028	8%	3,02	3,56	64	64	100%
(433) Radiometer ABL (series 700 and 800)		3,35	0,057	1,7	30	0						30		
(449) Roche OMNI S1-6 / cobas b221		3,24	0,17	5,3	5	0						5		

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EQA round: ABR2/22 - Acid-base Status and Electrolytes

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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				
(135) Potassium cation (ISE)	[mmol/L]				64							64	63	98%	
Samples and groups															
Sample A		3,29	0,092	2,8	64		CVP	3,29	0,028	8%	3,02	3,56	64	64	100%
(452) Radiometer ABL 90		3,20	0,000	0,00	19	0							19		
Other					10	0							10		
Sample B		4,07	0,088	2,2	64		CVP	4,07	0,027	8%	3,74	4,4	64	63	98%
(433) Radiometer ABL (series 700 and 800)		4,10	0,005	0,14	30	0							30		
(449) Roche OMNI S1-6 / cobas b221		4,05	0,16	4,0	5	0							5		
(452) Radiometer ABL 90		4,00	0,000	0,00	19	0							19		
Other					10	0							10		
1x 410, 1x 411, 1x 420, 4x 454, 2x 455, 1x 999															
(136) Chloride anion (ISE)	[mmol/L]				62								62	62	100%
Samples and groups															
Sample A		94,8	1,9	2,0	62		CVP	94,8	0,60	7%	88,1	102	62	62	100%
(433) Radiometer ABL (series 700 and 800)		95,7	1,1	1,1	29	0							29		
(449) Roche OMNI S1-6 / cobas b221		96,1	4,7	4,9	5	0							5		
(452) Radiometer ABL 90		93,1	0,580	0,63	19	0							19		
Other					9	0							9		
Sample B		104	1,9	1,9	62		CVP	104	0,60	7%	96,7	112	62	62	100%
(433) Radiometer ABL (series 700 and 800)		105	1,1	1,1	29	0							29		
(449) Roche OMNI S1-6 / cobas b221		105	5,8	5,5	5	0							5		
(452) Radiometer ABL 90		102	0,580	0,57	19	0							19		
Other					9	0							9		
1x 410, 1x 411, 1x 420, 4x 454, 2x 999															
(137) Calcium cation (ISE)	[mmol/L]				72								72	70	97%
Samples and groups															
Sample A		1,16	0,024	2,0	72		CVP	1,16	,0068	10%	1,04	1,28	72	71	99%
(433) Radiometer ABL (series 700 and 800)		1,18	0,019	1,6	36	0							36		
(449) Roche OMNI S1-6 / cobas b221		1,13	0,03	2,7	6	0							6		
(452) Radiometer ABL 90		1,16	0,011	0,98	19	0							19		
Other					11	0							11		
Sample B		0,897	0,021	2,4	72		CVP	0,897	,0062	10%	0,807	0,987	72	70	97%
(433) Radiometer ABL (series 700 and 800)		0,909	0,015	1,6	36	0							36		
(449) Roche OMNI S1-6 / cobas b221		0,852	0,018	2,1	6	0							6		
(452) Radiometer ABL 90		0,893	0,011	1,2	19	0							19		
Other					11	0							11		
1x 410, 1x 411, 1x 420, 1x 448, 4x 454, 2x 455, 1x 999															
(139) Glucose	[mmol/L]				56								56	53	95%
Samples and groups															
Sample A		12,0	0,46	3,8	56		CVP	12	0,15	15%	10,2	13,8	56	54	96%
(433) Radiometer ABL (series 700 and 800)		12,0	0,70	5,9	28	0							28		
(452) Radiometer ABL 90		12,0	0,19	1,6	19	0							19		
Other					9	0							9		
Sample B		8,82	0,32	3,7	56		CVP	8,82	0,11	15%	7,49	10,2	56	53	95%
(433) Radiometer ABL (series 700 and 800)		8,86	0,50	5,6	28	0							28		
(452) Radiometer ABL 90		8,79	0,16	1,8	19	0							19		
Other					9	1							9		
1x 411, 1x 420, 2x 449, 3x 454, 2x 455															
(169) Lactate	[mmol/L]				57								57	54	95%
Samples and groups															
Sample A		4,05	0,25	6,3	57		CVP	4,05	0,083	18%	3,32	4,78	57	55	96%
(433) Radiometer ABL (series 700 and 800)		4,01	0,30	7,5	30	0							30		
(452) Radiometer ABL 90		4,12	0,089	2,2	19	0							19		
Other					8	0							8		
Sample B		2,81	0,19	6,7	57		CVP	2,81	0,062	18%	2,3	3,32	57	54	95%
(433) Radiometer ABL (series 700 and 800)		2,82	0,22	7,7	30	0							30		
(452) Radiometer ABL 90		2,81	0,078	2,8	19	0							19		
Other					8	0							8		
1x 410, 1x 411, 1x 420, 2x 449, 3x 454															