

Summary statistics - quantitative results

(Groups: measurement principle)

Filter: minimal size of groups n = 5

EQA round: AKS4/17 - Basic Clinical Chemistry - Serum

Dead line: 13.10.2017

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}	
(8) Lithium					50																50	47	94%
Samples and groups	[mmol/L]																						
Sample A		1,20	0,05	4,3	50									0	CRV	1,20	0,018	12%	1,05	1,35	50	47	94%
(1) Flame emission phot.		1,20	0,05	4,3	9	0															9		
(3) ISE		1,22	0,04	4,0	20	0															20		
(4) Photometry		1,18	0,04	3,9	17	0															17		
Other					4	0															4		
Sample B		1,82	0,07	4,2	50									0	CRV	1,853	0,028	12%	1,63	2,08	50	49	98%
(1) Flame emission phot.		1,84	0,05	3,2	9	0															9		
(3) ISE		1,85	0,08	4,4	20	0															20		
(4) Photometry		1,80	0,07	4,2	17	0															17		
Other					4	0															4		
															3x 2, 1x 99								
(9) Total protein					358									0							358	353	99%
Samples and groups	[g/L]																						
Sample A		83,1	2,2	2,7	358									0	CRV	84,94	0,99	9%	77,2	92,6	358	356	99%
(1) Biuret		83,1	2,2	2,7	358	0															358		
Sample B		77,1	1,9	2,5	358									0	CRV	78,17	0,92	9%	71,1	85,3	358	355	99%
(1) Biuret		77,1	1,9	2,5	358	0															358		
															3x 2, 1x 99								
(10) Albumin					345									345	345	100%							0
Samples and groups	[g/L]																						
Sample A		52,1	1,6	3,0	345	CVP	52,1	0,21	12%	45,8	58,4		345	345	100%							0	
(1) BCG		52,2	1,6	3,0	312	0							312										
(2) BCP		51,3	1,6	3,0	32	0							32										
Other					1	0							1										
Sample B		49,0	1,6	3,2	345	CVP	49	0,21	12%	43,1	54,9		345	345	100%							0	
(1) BCG		49,1	1,6	3,2	312	0							312										
(2) BCP		48,1	1,1	2,4	32	0							32										
Other					1	0							1										
						1x 0																	
(11) Osmolality					135									135	128	95%							0
Samples and groups	[mmol/kg]																						
Sample A		296	6,8	2,3	135	CVP	296	1,4	5%	281	311		135	130	96%							0	
(1) Osmometer		297	6,6	2,2	133	0							133										
Other					2	0							2										
Sample B		312	6,8	2,2	135	CVP	312	1,4	5%	296	328		135	133	99%							0	
(1) Osmometer		312	6,7	2,1	133	0							133										
Other					2	0							2										
						2x 99																	
(12) Lactate					165									165	156	95%							0
Samples and groups	[mmol/L]																						
Sample A		2,96	0,14	4,6	165	CVP	2,96	0,026	15%	2,51	3,41		165	161	98%							0	
(1) UV enzyme method		2,93	0,14	4,8	78	0							78										
(2) Enzyme electrodes		3,06	0,25	8,2	14	0							14										

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(12) Lactate					165							165	156	95%							0					
Samples and groups	[mmol/L]																									
Sample A		2,96	0,14	4,6	165		CVP	2,96	0,026	15%	2,51	3,41		165	161	98%							0			
(3) Photometric enzyme method		2,97	0,12	4,1	73	0								73												
Sample B		4,92	0,23	4,6	165		CVP	4,92	0,043	15%	4,18	5,66		165	157	95%							0			
(1) UV enzyme method		4,87	0,23	4,7	78	0								78												
(2) Enzyme electrodes		4,98	0,42	8,5	14	0								14												
(3) Photometric enzyme method		4,96	0,20	4,0	73	0								73												
(13) Bilirubin total					373									0							373	373	100%			
Samples and groups	[µmol/L]																									
Sample A		81,9	4,8	5,9	373									0		CRV	82,8	2,0	21%	65,4	101		373	373	100%	
(1) Jendrassik-Gróf		83,3	4,4	5,2	71	0																	71			
(2) DCA, DPD		81,0	4,4	5,4	274	0																	274			
(4) Oxidation-reduction methods		87,8	3,9	4,5	25	0																	25			
Other					3	0																	3			
Sample B		74,7	4,3	5,8	373									0		3x 99 CRV	76	1,7	21%	60	92		373	373	100%	
(1) Jendrassik-Gróf		75,8	3,9	5,2	71	0																	71			
(2) DCA, DPD		74,0	4,0	5,4	274	0																	274			
(4) Oxidation-reduction methods		79,5	3,1	3,9	25	0																	25			
Other					3	0																	3			
																3x 99										
(15) Cholesterol					359									9	7	78%							350	345	99%	
Samples and groups	[mmol/L]																									
Sample A		5,60	0,18	3,2	359									9	7	78%							350	347	99%	
(1) Enzyme CHOD-PAP		5,61	0,17	3,1	349	0											CRV	5,672	0,057	9%	5,16	6,19		349		
(1) Enzyme CHOD-PAP; (149) Siemens (Dade)		5,12	0,43	8,4	8	0	CVPG	5,18	0,43	6,9%	4,82	5,54		8												
Other					2	0								1									1			
							1x 0/149										1x 0/149, 1x 99									
Sample B		4,66	0,15	3,1	359									9	8	89%							350	345	99%	
(1) Enzyme CHOD-PAP		4,66	0,14	3,0	349	1											CRV	4,793	0,048	9%	4,36	5,23		349		
(1) Enzyme CHOD-PAP; (149) Siemens (Dade)		4,11	0,28	6,9	8	0	CVPG	4,1	0,29	6,9%	3,81	4,39		8												
Other					2	0								1									1			
							1x 0/149										1x 0/149, 1x 99									
(16) Glucose					376									0									376	370	98%	
Samples and groups	[mmol/L]																									
Sample A		5,34	0,14	2,6	376									0			CRV	5,411	0,054	9%	4,92	5,9		376	370	98%
(1) GOD photometry		5,35	0,16	3,1	110	0																	110			
(2) GOD electrochemical		5,23	0,21	4,1	11	0																	11			
(3) Method with hexokinase		5,33	0,12	2,3	255	0																	255			
Sample B		12,0	0,29	2,4	376									0			CRV	12,04	0,12	9%	10,9	13,2		376	374	99%
(1) GOD photometry		12,0	0,34	2,8	110	0																	110			
(2) GOD electrochemical		11,6	0,43	3,7	11	0																	11			
(3) Method with hexokinase		12,0	0,27	2,2	255	0																	255			

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(17) Uric acid					366							0				366	359	98%				
Samples and groups	[µmol/L]																					
Sample A		464	13	2,8	366							0	CRV	471,6	4,7	12%	415	529	366	363	99%	
(2) Enzyme-photomet. m.		464	13	2,8	366	0													366			
Sample B		312	9,8	3,1	366							0	CRV	316,5	3,2	12%	278	355	366	361	99%	
(2) Enzyme-photomet. m.		312	9,8	3,1	366	0													366			
(18) Urea					373							0							373	371	99%	
Samples and groups	[mmol/L]																					
Sample A		14,7	0,50	3,4	373							0	CRV	14,93	0,15	15%	12,6	17,2	373	371	99%	
(1) UV enzymatic m.(GMD)		14,7	0,50	3,4	360	0													360			
(5) Electrochemical m.		14,8	0,59	4,0	9	0													9			
Other					4	0													4			
Sample B		9,91	0,35	3,5	373							0	CRV	10,09	0,100	15%	8,57	11,7	373	373	100%	
(1) UV enzymatic m.(GMD)		9,91	0,35	3,5	360	0													360			
(5) Electrochemical m.		9,75	0,22	2,3	9	0													9			
Other					4	0													4			
													2x 2, 2x 99									
(19) Creatinine					376							0							376	367	98%	
Samples and groups	[µmol/L]																					
Sample A		349	13	3,7	376							0	CRV	351	3,5	15%	298	404	376	376	100%	
(1) Jaffé with deprot.		328	9,9	3,0	5	0													5			
(2) Jaffé without depro. (with corr.)		345	16	4,6	195	0													195			
(3) Enzyme		353	8,2	2,3	169	0													169			
(4) Jaffé without depro. (without corr.)		349	5,2	1,5	7	0													7			
Sample B		154	8,4	5,5	376							0	CRV	151,1	1,5	15%	128	174	376	367	98%	
(1) Jaffé with deprot.		152	14	9,5	5	0													5			
(2) Jaffé without depro. (with corr.)		158	10	6,6	195	0													195			
(3) Enzyme		150	4,3	2,9	169	0													169			
(4) Jaffé without depro. (without corr.)		159	13	8,0	7	0													7			
(20) Triglycerides					358							0							358	355	99%	
Samples and groups	[mmol/L]																					
Sample A		2,34	0,09	3,8	358							0	CRV	2,412	0,024	15%	2,05	2,78	358	356	99%	
(1) GPO-PAP		2,34	0,09	3,8	345	0													345			
(2) Enzymatic UV method		2,36	0,10	4,3	13	0													13			
Sample B		1,95	0,06	3,5	358							0	CRV	2,03	0,020	15%	1,72	2,34	358	356	99%	
(1) GPO-PAP		1,95	0,06	3,5	345	0													345			
(2) Enzymatic UV method		1,97	0,08	4,4	13	0													13			
(21) ALP					367							129	126	98%					238	230	97%	
Samples and groups	[µkat/L]																					
Sample A		3,34	0,43	13	367							129	126	98%					238	232	97%	
(3) IFCC method		3,55	0,33	9,4	234	0													234			
(3) IFCC method; (60) Roche		2,96	0,13	4,3	127	0	CVPG	2,96	0,027	18%	2,42	3,5							127			

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(26) CK					332							0									332	328	99%
Samples and groups	[µkat/L]																						
Sample B		8,64	0,52	6,0	332							0		CRV	8,705	0,21	20%	6,96	10,5	332	329	99%	
(1) IFCC method		8,64	0,52	6,0	332	0														332			
(27) gamma-GT					368							0									368	367	100%
Samples and groups	[µkat/L]																						
Sample A		3,43	0,12	3,4	368							0		CRV	3,454	0,085	15%	2,93	3,98	368	367	100%	
(1) IFCC method		3,43	0,12	3,4	367	0														367			
Other					1	0														1			
Sample B		3,15	0,10	3,3	368							0		CRV	3,181	0,078	15%	2,7	3,66	368	367	100%	
(1) IFCC method		3,15	0,10	3,3	367	0														367			
Other					1	0														1			
														1x 99									
(28) LD					271							0									271	265	98%
Samples and groups	[µkat/L]																						
Sample A		7,85	0,23	2,9	271							0		CRV	7,757	0,17	18%	6,36	9,16	271	266	98%	
(3) IFCC method		7,85	0,23	2,9	271	0														271			
Sample B		5,16	0,20	3,9	271							0		CRV	5,039	0,11	18%	4,13	5,95	271	267	99%	
(3) IFCC method		5,16	0,20	3,9	271	0														271			
(29) Lipase					172							153	148	97%							0		
Samples and groups	[µkat/L]																						
Sample A		1,67	0,21	13	172							153	152	99%							0		
(1) Photometry; (1) Abbott		1,80	0,11	6,4	15	0	CVPG	1,8	0,073	24%	1,36	2,24								15			
(1) Photometry; (12) Beckman Coulter		1,50	0,30	20	14	0	CVPG	1,5	0,20	24%	1,14	1,86								14			
(1) Photometry; (58) Beckman Coulter (Olympus)		1,78	0,08	4,7	42	0	CVPG	1,78	0,031	24%	1,35	2,21								42			
(1) Photometry; (60) Roche		1,54	0,12	7,6	69	0	CVPG	1,54	0,034	24%	1,17	1,91								69			
(1) Photometry; (179) Siemens (Bayer)		2,07	0,11	5,5	13	0	CVPG	2,07	0,078	24%	1,57	2,57								13			
Other					19	0															0		
Sample B		2,40	0,43	18	172							153	148	97%							0		
(1) Photometry; (1) Abbott		2,70	0,17	6,2	15	0	CVPG	2,7	0,11	24%	2,05	3,35								15			
(1) Photometry; (12) Beckman Coulter		2,19	0,54	25	14	0	CVPG	2,19	0,35	24%	1,66	2,72								14			
(1) Photometry; (58) Beckman Coulter (Olympus)		2,71	0,12	4,4	42	0	CVPG	2,71	0,045	24%	2,05	3,37								42			
(1) Photometry; (60) Roche		2,11	0,17	8,2	69	0	CVPG	2,11	0,051	24%	1,6	2,62								69			
(1) Photometry; (179) Siemens (Bayer)		3,02	0,17	5,5	13	0	CVPG	3,02	0,11	24%	2,29	3,75								13			
Other					19	0															0		
(30) Cholinesterase					123							121	114	94%							0		
Samples and groups	[µkat/L]																						
Sample A		150	6,8	4,6	123							121	115	95%							0		
(1) ECCLS method 37°C		149	6,7	4,5	119	0	CVP	149	1,5	12%	131	167								119			
Other					4	0															2		
Sample B		159	7,6	4,8	123							121	115	95%							0		

