

## Summary statistics - quantitative results

(Groups: measurement principle)

Filter: minimal size of the groups n = 5

## EQA round: PRO1/22 - Specific Proteins

Deadline: 04.03.2022

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

Test	[unit]	Comparability					Comparability								
		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>(46) alpha-1-antitrypsin</b>	[g/L]				87							87	84	97%	
Samples and groups	[g/L]														
<b>Sample A</b>		1,03	0,061	5,9	87	CVP	1,03	0,016	25%	0,772	1,29	87	86	99%	
(2) Immunoturbidimetry		1,02	0,065	6,3	65	0						65			
(3) Immunonephelometry		1,06	0,057	5,4	22	0						22			
<b>Sample B</b>		1,47	0,10	7,0	87	CVP	1,47	0,027	25%	1,1	1,84	87	84	97%	
(2) Immunoturbidimetry		1,46	0,08	5,5	65	0						65			
(3) Immunonephelometry		1,49	0,16	11	22	0						22			
<b>(53) a-2-macroglobulin</b>	[g/L]				23							23	22	96%	
Samples and groups	[g/L]														
<b>Sample A</b>		1,43	0,15	10	23	CVP	1,43	0,074	21%	1,12	1,74	23	22	96%	
(2) Immunoturbidimetry		1,48	0,18	13	8	0						8			
(3) Immunonephelometry		1,41	0,16	11	15	0						15			
<b>Sample B</b>		2,02	0,18	8,9	23	CVP	2,02	0,092	21%	1,59	2,45	23	22	96%	
(2) Immunoturbidimetry		2,05	0,19	9,1	8	0						8			
(3) Immunonephelometry		1,99	0,22	11	15	0						15			
<b>(47) C3 complement</b>	[g/L]				132							132	131	99%	
Samples and groups	[g/L]														
<b>Sample A</b>		1,10	0,049	4,4	132	CVP	1,1	0,010	17%	0,913	1,29	132	131	99%	
(2) Immunoturbidimetry		1,10	0,049	4,5	104	0						104			
(3) Immunonephelometry		1,08	0,041	3,8	28	0						28			
<b>Sample B</b>		1,60	0,075	4,7	132	CVP	1,6	0,016	17%	1,32	1,88	132	132	100%	
(2) Immunoturbidimetry		1,60	0,08	5,0	104	0						104			
(3) Immunonephelometry		1,60	0,049	3,0	28	0						28			
<b>(52) C4 complement</b>	[g/L]				132							132	128	97%	
Samples and groups	[g/L]														
<b>Sample A</b>		0,149	0,013	8,4	132	CVP	0,149	,0027	21%	0,117	0,181	132	131	99%	
(2) Immunoturbidimetry		0,148	0,013	8,8	103	0						103			
(3) Immunonephelometry		0,152	0,011	7,1	29	0						29			
<b>Sample B</b>		0,381	0,028	7,4	132	CVP	0,381	,0060	21%	0,3	0,462	132	128	97%	
(2) Immunoturbidimetry		0,382	0,028	7,2	103	0						103			
(3) Immunonephelometry		0,377	0,031	8,2	29	0						29			
<b>(55) Total protein</b>	[g/L]				199							199	195	98%	
Samples and groups	[g/L]														
<b>Sample A</b>		49,2	4,1	8,2	199	CVP	49,2	0,70	16%	41,3	57,1	199	197	99%	
(1) Biuret		49,2	4,1	8,3	198	0						198			
Other					1	0						1			
<b>Sample B</b>		70,9	3,7	5,2	199	CVP	70,9	0,64	12%	62,3	79,5	199	197	99%	
(1) Biuret		70,9	3,7	5,2	198	0						198			
Other					1	0						1			
<b>(49) Ceruloplasmin</b>	[g/L]				67							58	54	93%	
Samples and groups	[g/L]														
<b>Sample A</b>		0,184	0,04	22	67							58	55	95%	
(2) Immunoturbidimetry; (1) Abbott		0,235	0,007	3,1	7	0	CVPG	0,235	,0072	19%	0,19	0,28	7		
(2) Immunoturbidimetry; (58) Beckman Coulter (AU)		0,160	0,015	9,3	7	0	CVPG	0,16	0,014	19%	0,129	0,191	7		
(2) Immunoturbidimetry; (60) Roche		0,151	0,001	1,1	15	0	CVPG	0,151	0	19%	0,122	0,18	15		
(2) Immunoturbidimetry; (91) Binding Site		0,143	0,01	7,3	9	0	CVPG	0,143	0,013	19%	0,115	0,171	9		
(3) Immunonephelometry; (12) Beckman Coulter		0,184	0,017	9,3	7	0	CVPG	0,176	0,027	19%	0,142	0,21	7		
(3) Immunonephelometry; (149) Siemens (Dade, BN, Dimension)		0,211	0,016	7,6	11	0	CVPG	0,211	0,012	19%	0,17	0,252	11		
Other					11	0						2			
<b>Sample B</b>		0,330	0,066	20	67							58	56	97%	
(2) Immunoturbidimetry; (1) Abbott		0,420	0,015	3,5	7	0	CVPG	0,42	0,014	19%	0,34	0,5	7		
(2) Immunoturbidimetry; (58) Beckman Coulter (AU)		0,305	0,022	7,3	7	0	CVPG	0,305	0,022	19%	0,247	0,363	7		
(2) Immunoturbidimetry; (60) Roche		0,279	0,009	3,5	15	0	CVPG	0,279	,0062	19%	0,225	0,333	15		
(2) Immunoturbidimetry; (91) Binding Site		0,265	0,022	8,4	9	0	CVPG	0,265	0,028	19%	0,214	0,316	9		
(3) Immunonephelometry; (12) Beckman Coulter		0,327	0,033	10	7	0	CVPG	0,327	0,030	19%	0,264	0,39	7		

## Summary statistics - quantitative results

(Groups: measurement principle)

Filter: minimal size of the groups n = 5

## EQA round: PRO1/22 - Specific Proteins

Deadline: 04.03.2022

Test	[unit]	RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	Comparability						N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub>
							AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL				
<b>(49) Ceruloplasmin</b>	[g/L]				67								58	54	93%
Samples and groups															
<b>Sample B</b>		0,330	0,066	20	67								58	56	97%
(3) Immunonephelometry; (149) Siemens (Dade, BN, Dimension)		0,376	0,038	10	11	0	CVPG	0,376	0,028	19%	0,304	0,448	11		
Other					11	0							2		
								2x 2/5, 2x 2/12, 4x 2/116, 1x 2/162, 1x 2/178, 1x 3/179							
<b>(51) Haptoglobin</b>	[g/L]				74								74	65	88%
Samples and groups															
<b>Sample A</b>		1,01	0,05	4,9	74		CVP	1,01	0,014	13%	0,878	1,15	74	66	89%
(2) Immunoturbidimetry		1,00	0,046	4,5	60	0							60		
(3) Immunonephelometry		1,07	0,13	12	14	0							14		
<b>Sample B</b>		1,43	0,073	5,1	74		CVP	1,43	0,021	13%	1,24	1,62	74	68	92%
(2) Immunoturbidimetry		1,42	0,06	4,2	60	0							60		
(3) Immunonephelometry		1,51	0,19	13	14	0							14		
<b>(41) IgA</b>	[g/L]				221								221	220	100%
Samples and groups															
<b>Sample A</b>		1,73	0,067	3,9	221		CVP	1,73	0,011	16%	1,45	2,01	221	220	100%
(2) Immunoturbidimetry		1,73	0,068	3,9	188	0							188		
(3) Immunonephelometry		1,72	0,062	3,6	32	0							32		
Other					1	0							1		
								1x 99							
<b>Sample B</b>		2,47	0,091	3,7	221		CVP	2,47	0,015	16%	2,07	2,87	221	220	100%
(2) Immunoturbidimetry		2,47	0,09	3,6	188	0							188		
(3) Immunonephelometry		2,51	0,092	3,7	32	0							32		
Other					1	0							1		
								1x 99							
<b>(42) IgG</b>	[g/L]				223								223	223	100%
Samples and groups															
<b>Sample A</b>		6,97	0,22	3,2	223		CVP	6,97	0,036	15%	5,92	8,02	223	223	100%
(2) Immunoturbidimetry		6,97	0,22	3,1	190	0							190		
(3) Immunonephelometry		7,00	0,25	3,5	32	0							32		
Other					1	0							1		
								1x 99							
<b>Sample B</b>		9,96	0,32	3,2	223		CVP	9,96	0,053	15%	8,46	11,5	223	223	100%
(2) Immunoturbidimetry		9,95	0,32	3,3	190	0							190		
(3) Immunonephelometry		10,1	0,31	3,1	32	0							32		
Other					1	0							1		
								1x 99							
<b>(43) IgM</b>	[g/L]				221								221	217	98%
Samples and groups															
<b>Sample A</b>		0,442	0,028	6,3	221		CVP	0,442	0,046	18%	0,362	0,522	221	217	98%
(2) Immunoturbidimetry		0,441	0,027	6,2	189	0							189		
(3) Immunonephelometry		0,449	0,029	6,4	31	0							31		
Other					1	0							1		
								1x 99							
<b>Sample B</b>		0,672	0,034	5,1	221		CVP	0,672	0,056	18%	0,551	0,793	221	221	100%
(2) Immunoturbidimetry		0,668	0,033	5,0	189	0							189		
(3) Immunonephelometry		0,694	0,031	4,5	31	0							31		
Other					1	0							1		
								1x 99							
<b>(50) Orosomucoïd</b>	[g/L]				60								60	53	88%
Samples and groups															
<b>Sample A</b>		0,657	0,064	9,7	60		CVP	0,657	0,020	20%	0,525	0,789	60	54	90%
(2) Immunoturbidimetry		0,650	0,042	6,4	45	0							45		
(3) Immunonephelometry		0,697	0,15	21	15	0							15		
<b>Sample B</b>		0,948	0,078	8,2	60		CVP	0,948	0,025	20%	0,758	1,14	60	56	93%
(2) Immunoturbidimetry		0,945	0,051	5,4	45	1							45		
(3) Immunonephelometry		0,984	0,19	19	15	0							15		
<b>(48) Prealbumin</b>	[g/L]				118								118	115	97%
Samples and groups															
<b>Sample A</b>		0,269	0,014	5,2	118		CVP	0,269	0,031	23%	0,207	0,331	118	116	98%
(2) Immunoturbidimetry		0,269	0,013	4,7	106	1							106		
(3) Immunonephelometry		0,268	0,027	10	12	0							12		
<b>Sample B</b>		0,457	0,025	5,4	118		CVP	0,457	0,056	23%	0,351	0,563	118	115	97%
(2) Immunoturbidimetry		0,457	0,023	5,0	106	1							106		
(3) Immunonephelometry		0,458	0,048	10	12	0							12		
<b>(56) Soluble Transferrin Receptor (sTfR)</b>	[mg/L]				64								49	49	100%
Samples and groups															
<b>Sample A</b>		1,78	1,0	58	64								49	49	100%
(2) EIA (ELISA); (60) Roche		2,76	0,28	10	7	0	CVPG	2,71	0,11	20%	2,16	3,26	7		

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(Groups: measurement principle)

Filter: minimal size of the groups n = 5

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Deadline: 04.03.2022

Test	[unit]						Comparability									
		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>(56) Soluble Transferrin Receptor (sTfR) [mg/L]</b>														49	49	100%
Samples and groups																
<b>Sample A</b>		1,78	1,0	58	64							49	49	100%		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		0,990	0,015	1,5	9	0	CVPG	0,996	0,022	20%	0,796	1,2		9		
(6) IMT, IMN; (60) Roche		2,70	0,25	9,1	22	0	CVPG	2,71	0,11	20%	2,16	3,26		22		
(6) IMT, IMN; (999) another manufacturer		0,915	0,13	14	6	0	CVPG	0,915	0,096	20%	0,732	1,1		0		
Other					20	0								11		
														1x 2/12, 2x 2/999, 1x 3/1, 4x 3/149, 1x 4/58, 4x 6/75, 4x 6/149, 1x 6/166, 1x 99/12, 1x 99/149		
<b>Sample B</b>		2,54	1,4	55	64							49	49	100%		
(2) EIA (ELISA); (60) Roche		3,91	0,59	15	7	0	CVPG	3,82	0,15	20%	3,05	4,59		7		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		1,44	0,045	3,1	9	0	CVPG	1,46	0,042	20%	1,16	1,76		9		
(6) IMT, IMN; (60) Roche		3,80	0,32	8,4	22	0	CVPG	3,82	0,15	20%	3,05	4,59		22		
(6) IMT, IMN; (999) another manufacturer		1,38	0,16	11	6	0	CVPG	1,38	0,12	20%	1,1	1,66		0		
Other					20	0								11		
														1x 2/12, 2x 2/999, 1x 3/1, 4x 3/149, 1x 4/58, 4x 6/75, 4x 6/149, 1x 6/166, 1x 99/12, 1x 99/149		
<b>(44) Transferrin [g/L]</b>														202	196	97%
Samples and groups																
<b>Sample A</b>		2,20	0,065	2,9	202		CVP	2,2	0,011	14%	1,89	2,51		202		
(2) Immunoturbidimetry		2,20	0,061	2,8	187	0								187		
(3) Immunonephelometry		2,14	0,12	5,7	15	0								15		
<b>Sample B</b>		3,14	0,12	3,9	202		CVP	3,14	0,021	14%	2,7	3,58		202		
(2) Immunoturbidimetry		3,14	0,12	3,8	187	0								187		
(3) Immunonephelometry		3,06	0,29	9,3	15	0								15		
st_kn_p		End of report										Printed: 11.03.2022				