

CERTIFICATE

Survey of 28 January 2022

You have fulfilled the requirements of the External Quality Assessment with the following analysis

Clinical Chemistry - Conventional Analysis (100):

Validity 6 months:

AP (R: B1a)
Albumin (R: B1a)
Bilirubin (R: B1a)
CK (R: B1a)
Calcium (R: B1a)
Chloride (R: B1a)
Cholesterol (R: B1a)
Creatinine (R: B1a)
GOT (R: B1a)
GPT (R: B1a)
Glucose (R: B1a)
IgA (R: B1a)
IgG (R: B1a)
IgM (R: B1a)

LDH (R: B1a)
Lactate (R: B1a)
Lithium (R: B1a)
Magnesium (R: B1a)
Phosphate (R: B1a)
Potassium (R: B1a)
Protein (R: B1a)
Sodium (R: B1a)
Transferrine (R: B1a)
Triglycerides (R: B1a)
Urea (R: B1a)
Uric Acid (R: B1a)

Validity 12 months:

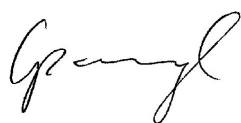
Acid Phosphatase
Aldolase
Bilirubin conj.
Iron
Lipase
alpha-Amylase

(R) analysis is subject to the RiliBÄK

Participant:

43733
CG Cytogenomics Medical Laboratory
CG Cytogenomics
313 Hrakleiou Av.
14122 Neo Irakleio

Düsseldorf, 11 February 2022



Prof. Dr. med. Michael Spannagl
(Head of Reference Institution)



Dr. rer. nat. Manfred Falck
(Adviser)

CERTIFICATE OF PARTICIPATION

Survey of 28 January 2022

You have participated in the External Quality Assessment with the following analysis

Clinical Chemistry - Conventional Analysis (100):

AP (R: B1a)	Glucose (R: B1a)	Transferrine (R: B1a)
Acid Phosphatase	IgA (R: B1a)	Triglycerides (R: B1a)
Albumin (R: B1a)	IgG (R: B1a)	Urea (R: B1a)
Aldolase	IgM (R: B1a)	Uric Acid (R: B1a)
Bilirubin (R: B1a)	Iron	alpha-Amylase
Bilirubin conj.	LDH (R: B1a)	
CHE	Lactate (R: B1a)	
CK (R: B1a)	Lipase	
Calcium (R: B1a)	Lithium (R: B1a)	
Chloride (R: B1a)	Magnesium (R: B1a)	
Cholesterol (R: B1a)	Phosphate (R: B1a)	
Creatinine (R: B1a)	Potassium (R: B1a)	
GGT (R: B1a)	Prostatic Acid Posphtase	
GOT (R: B1a)	Protein (R: B1a)	
GPT (R: B1a)	Sodium (R: B1a)	

(R) analysis is subject to the RiliBÄK

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Dr. rer. nat. Manfred Falck
(Adviser)

Listing and evaluation of the results

43733: CG Cytogenomics Medical Laboratory
CG Cytogenomics

Survey of 28 January 2022

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Clinical Chemistry - Conventional Analysis

Analyte	Sam- ple	Unit	Your value	Target value	TV- Type	Lower limit	Upper limit	Deviation	Z-Score	Meets criteria	
AP	11	U/l	88.0	87.3	SV	71.6	103	0.8%	0,196	+	
	12		398	403	SV	330	476	-1.2%	-0,323	+	
Acid Phosphatase	11	U/l	4.01	4.96	SV	3.32	6.60	-19.2%	-3,83	+	
	12		47.9	50.6	SV	33.9	67.3	-5.3%	-0,308	+	
Albumin	11	g/dl	4.23	4.23	SV	3.38	5.08	0.0%	0	+	
	12		2.64	2.68	SV	2.14	3.22	-1.5%	-0,313	+	
Aldolase	11	U/l	2.30	2.47	SV	0.770	4.17	-6.9%	-0,245	+	
	12		0.400	0.856	SV	0.000	2.56	-53.3%	-0,862	+	
Bilirubin	11	mg/dl	1.08	1.11	SV	0.866	1.35	-2.7%	-0,556	+	
	12		4.46	4.59	SV	3.58	5.60	-2.8%	-0,605	+	
Bilirubin conj.	11	mg/dl	0.460	0.418	SV	0.268	0.568	10.0%	1,5	+	
	12		1.99	1.87	SV	1.20	2.54	6.4%	1,05	+	
CHE	11	U/l	8277	9133	SV	7489	10777	-9.4%	-2	+	
	12		<1500	719	SV	590	848		13,5	-	
CK	11	U/l	83.0	91.5	RMV	73.2	110	-9.3%	-0,942	+	
	12		410	431	RMV	345	517	-4.9%	-1,38	+	
Calcium	11	mmol/l	2.15	2.18	RMV	1.96	2.40	-1.5%	-0,548	+	
	12		3.17	3.34	RMV	3.01	3.67	-5.2%	-2,45	+	
Chloride	11	mmol/l	116	116	RMV	107	125	0.0%	0	+	
	12		89.7	85.8	RMV	78.9	92.7	4.5%	1,73	+	
Cholesterol	11	mg/dl	167	174	RMV	151	197	-4.0%	-1,36	+	
	12		104	104	RMV	90.5	118	0.0%	0	+	
Creatinine	11	mg/dl	0.930	0.960	RMV	0.768	1.15	-3.1%	-0,5	+	
	12		5.51	5.24	RMV	4.19	6.29	5.2%	1,17	+	
GGT	11	U/l	27.0	37.3	RMV	29.5	45.1	-27.6%	-7,69	-	
	12		138	159	RMV	126	192	-13.2%	-3,65	+	
GOT	11	U/l	43.0	43.0	RMV	34.0	52.0	0.0%	0	+	
	12		216	205	RMV	162	248	5.4%	1,4	+	
GPT	11	U/l	49.0	46.7	MW	36.9	56.5	4.9%	0,885	+	
	12		113	96.5	RMV	76.2	117	17.1%	2,28	+	
Glucose	11	mg/dl	78.0	76.1	RMV	64.7	87.5	2.5%	0,826	+	
	12		262	271	RMV	230	312	-3.3%	-1,19	+	
IgA	11	mg/dl	207	200	SV	160	240	3.5%	0,614	+	
	12		139	132	SV	106	158	5.3%	0,91	+	
IgG	11	mg/dl	993	1006	SV	825	1187	-1.3%	-0,33	+	
	12		616	638	SV	523	753	-3.4%	-0,84	+	
IgM	11	mg/dl	99.0	104	SV	77.0	131	-4.8%	-0,833	+	
	12		53.0	56.4	SV	41.7	71.1	-6.0%	-0,944	+	
Iron	11	µmol/l	16.1	17.5	SV	15.1	20.0	-7.9%	-3,53	+	
	12		10.7	11.7	SV	10.1	13.3	-8.2%	-3,19	+	
LDH	11	U/l	135	142	RMV	116	168	-4.9%	-1,46	+	
	12		350	366	RMV	300	432	-4.4%	-1,38	+	
Lactate	11	mmol/l	1.97	2.12	SV	1.74	2.50	-7.1%	-1,76	+	
	12		1.05	1.18	SV	0.968	1.39	-11.0%	-2,32	+	
Lipase	11	U/l	48.0	50.6	SV	38.0	63.3	-5.1%	-1,09	+	
	12		105	108	SV	81.0	135	-2.8%	-0,833	+	
Lithium	11	mmol/l	0.900	0.852	RMV	0.750	0.954	5.6%	1,55	+	
	12		1.60	1.73	RMV	1.52	1.94	-7.5%	-2,95	+	

Listing and evaluation of the results

43733: CG Cytogenomics Medical Laboratory
CG Cytogenomics

Survey of 28 January 2022

Analyte	Sam- ple	Unit	Your value	Target value	TV- Type	Lower limit	Upper limit	Deviation	Z-Score	Meets criteria	
Magnesium	11	mmol/l	0.830	0.891	RMV	0.757	1.02	-6.8%	-2,25	+	
	12		1.75	1.81	RMV	1.54	2.08	-3.3%	-1,29	+	
Phosphate	11	mmol/l	1.00	1.02	SV	0.857	1.18	-1.5%	-0,438	+	
	12		2.40	2.38	SV	2.00	2.76	0.8%	0,299	+	
Potassium	11	mmol/l	4.20	4.29	RMV	3.95	4.63	-2.1%	-1,45	+	
	12		5.90	6.14	RMV	5.65	6.63	-3.9%	-4,21	+	
Prostatic Acid Posphatase	(1) 11	U/l	3.61	4.08	SV	2.73	5.43	-11.5%	-0,443	+	
	(1) 12		46.1	44.3	SV	29.7	58.9	4.0%	0,077	+	
Protein	11	g/dl	6.47	6.71	RMV	6.04	7.38	-3.6%	-1,45	+	
	12		4.28	4.49	RMV	4.04	4.94	-4.7%	-1,44	+	
Sodium	11	mmol/l	139	139	RMV	132	146	0.0%	0	+	
	12		125	126	RMV	120	132	-0.8%	-0,592	+	
Transferrine	11	mg/dl	268	276	SV	243	309	-2.9%	-0,873	+	
	12		174	172	SV	151	193	1.2%	0,299	+	
Triglycerides	11	mg/dl	114	105	RMV	88.2	122	8.6%	1,86	+	
	12		101	89.3	RMV	75.0	104	13.1%	2,53	+	
Urea	11	mg/dl	27.0	26.9	RMV	21.5	32.3	0.4%	0,081	+	
	12		97.0	101	RMV	80.8	121	-4.0%	-1,18	+	
Uric Acid	11	mg/dl	4.90	4.97	RMV	4.32	5.62	-1.4%	-0,402	+	
	12		9.50	9.57	RMV	8.33	10.8	-0.7%	-0,214	+	
alpha-Amylase	11	U/l	97.0	101	SV	70.7	131	-4.0%	-0,57	+	
	12		382	401	SV	281	521	-4.7%	-0,579	+	

Listing and evaluation of the results

43733: CG Cytogenomics Medical Laboratory
CG Cytogenomics

Survey of 28 January 2022

Analyte	Sam- ple	Your unit	Stated value	Conversion factor	Method	Manu- facturer	Device
AP	11	U/l	88.0	1.00	11	SI	SI02
	12		398	1.00			
Acid Phosphatase	11	U/l	4.01	1.00	50	TS	KN98
	12		47.9	1.00			
Albumin	11	g/dl	4.23	1.00	29	SI	SI02
	12		2.64	1.00			
Aldolase	11	U/l	2.30	1.00	9999	SI	SI02
	12		0.400	1.00			
Bilirubin	11	mg/dl	1.08	1.00	127	SI	SI02
	12		4.46	1.00			
Bilirubin conj.	11	mg/dl	0.460	1.00	127	SI	SI02
	12		1.99	1.00			
CHE	11	U/l	8277	1.00	104	SI	SI02
	12		<1500	1.00			
CK	11	U/l	83.0	1.00	60	SI	SI02
	12		410	1.00			
Calcium	11	mg/dl	8.61	0.250	12	SI	SI02
	12		12.7	0.250			
Chloride	11	mmol/l	116	1.00	71	SI	SI02
	12		89.7	1.00			
Cholesterol	11	mg/dl	167	1.00	33	SI	SI02
	12		104	1.00			
Creatinine	11	mg/dl	0.930	1.00	74	SI	SI02
	12		5.51	1.00			
GGT	11	U/l	27.0	1.00	60	SI	SI02
	12		138	1.00			
GOT	11	U/l	43.0	1.00	2	SI	SI02
	12		216	1.00			
GPT	11	U/l	49.0	1.00	2	SI	SI02
	12		113	1.00			
Glucose	11	mg/dl	78.0	1.00	58	SI	SI02
	12		262	1.00			
IgA	11	mg/dl	207	1.00	156	SI	SI02
	12		139	1.00			
IgG	11	mg/dl	993	1.00	156	SI	SI02
	12		616	1.00			
IgM	11	mg/dl	99.0	1.00	156	SI	SI02
	12		53.0	1.00			
Iron	11	µg/dl	90.0	0.179	51	SI	SI02
	12		60.0	0.179			
LDH	11	U/l	135	1.00	9999	SI	SI02
	12		350	1.00			
Lactate	11		1.97	1.00	43	SI	SI02
	12		1.05	1.00			
Lipase	11	U/l	48.0	1.00	45	SI	SI02
	12		105	1.00			
Lithium	11	mmol/l	0.900	1.00	70	TS	KN98
	12		1.60	1.00			
Magnesium	11	mg/dl	2.02	0.411	128	SI	SI02
	12		4.26	0.411			
Phosphate	11	mg/dl	3.11	0.323	7	SI	SI02
	12		7.43	0.323			
Potassium	11	mmol/l	4.20	1.00	71	SI	SI02
	12		5.90	1.00			
Prostatic Acid Posphatase	11	U/l	3.61	1.00	50	TS	KN98
	12		46.1	1.00			

Listing and evaluation of the results

43733: CG Cytogenomics Medical Laboratory
CG Cytogenomics

Survey of 28 January 2022

Analyte	Sam- ple	Your unit	Stated value	Conversion factor	Method	Manu- facturer	Device
Protein	11	g/dl	6.47	1.00	27	SI	SI02
	12		4.28	1.00			
Sodium	11	mmol/l	139	1.00	71	SI	SI02
	12		125	1.00			
Transferrine	11		268	1.00	156	SI	SI02
	12		174	1.00			
Triglycerides	11	mg/dl	114	1.00	57	SI	SI02
	12		101	1.00			
Urea	11	mg/dl	27.0	1.00	117	SI	SI02
	12		97.0	1.00			
Uric Acid	11	mg/dl	4.90	1.00	124	SI	SI02
	12		9.50	1.00			
alpha-Amylase	11	U/l	97.0	1.00	48	SI	SI02
	12		382	1.00			

(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.

Individual summary of results

43733: CG Cytogenomics Medical Laboratory
CG Cytogenomics

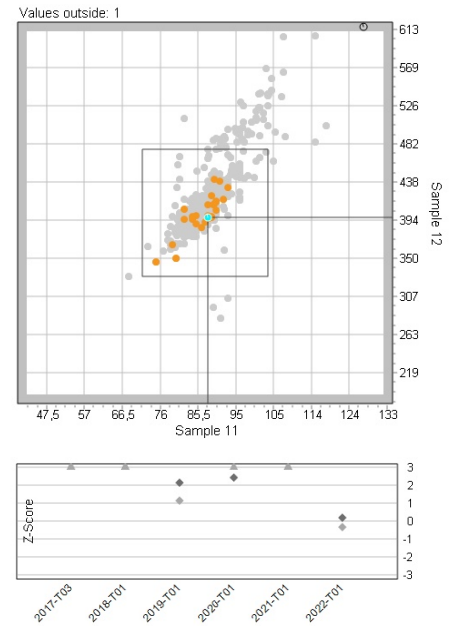
Survey of 28 January 2022

100 Clinical Chemistry - Conventional Analysis

AP (U/l, N = 547)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Abbott	11	90.3	74.0 - 107	90.3	5.97	60	100	100		
	12	432	354 - 510	432	4.58	60	100	100		
BE (OL) AU-System / other	11	97.1	79.6 - 115	97.1	5.84	55	98.2	96.4		
	12	503	412 - 594	503	5.03	55	98.2	98.2		
Siemens (Bayer Health)	11	87.3	71.6 - 103	87.3	4.09	30	100	100		
	12	403	330 - 476	403	3.85	30	100	100		
Siemens (Dade Behring)	11	84.5	69.3 - 99.7	84.5	3.46	51	98.0	98.0		
	12	393	322 - 464	393	2.90	51	100	100		
Ortho (Vitros) (1)	11	91.2	74.8 - 108	91.2	2.24	3				
	12	294	241 - 347	294	4.25	3				
Roche	11	86.1	70.6 - 102	86.1	3.59	317	100	99.7		
	12	405	332 - 478	405	3.38	317	99.7	99.7		
other providers / methods	11	91.1	74.7 - 107	91.1	11.7	31	87.1	80.6		
	12	446	366 - 526	446	11.5	31	83.9	83.9		

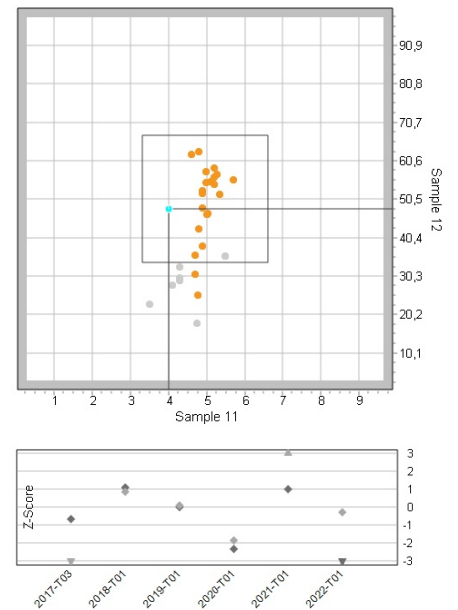
(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.

Rate of success: 98,2%



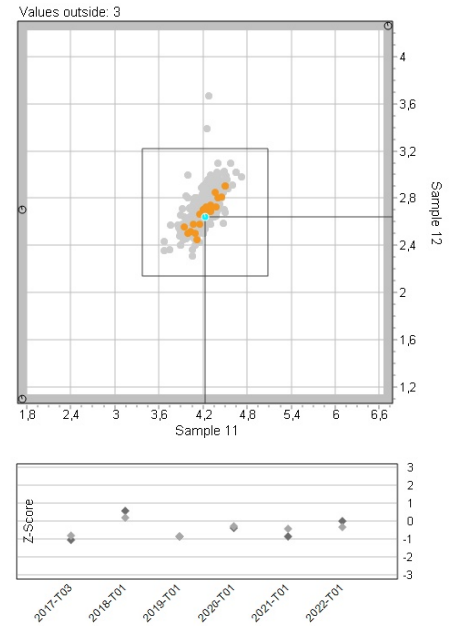
Acid Phosphatase (U/l, N = 32)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Beckman - AU-Systems	11	4.53	3.04 - 6.02	4.53	17.1	8	100	87.5		
	12	29.2	19.6 - 38.8	29.2	22.5	8	87.5	87.5		
all providers	11	4.96	3.32 - 6.60	4.96	5.00	24	100	91.7		
	12	50.6	33.9 - 67.3	50.6	17.3	24	91.7	91.7		

Rate of success: 90,6%



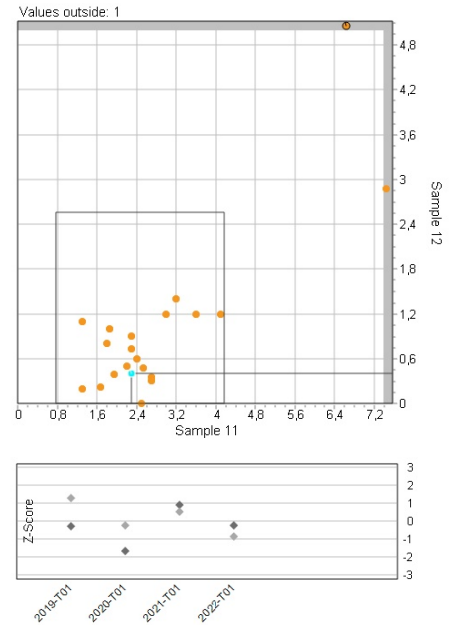
Albumin (g/dl, N = 417)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Abbott	11	4.12	3.30 - 4.94	4.12	4.27	39	97.4	97.4		
	12	2.57	2.06 - 3.08	2.57	3.70	39	100			
Beckman (Olympus)	11	4.07	3.26 - 4.88	4.07	2.65	47	100	100		
	12	2.57	2.06 - 3.08	2.57	2.92	47	100			
Siemens (Bayer Health)	11	4.23	3.38 - 5.08	4.23	3.76	25	100	100		
	12	2.68	2.14 - 3.22	2.68	4.78	25	100			
Siemens (Dade Behring)	11	4.16	3.33 - 4.99	4.16	2.48	43	100	100		
	12	2.59	2.07 - 3.11	2.59	3.40	43	100			
Roche (immunological method)	11	4.19	3.35 - 5.03	4.19	4.37	43	100	100		
	12	2.66	2.13 - 3.19	2.66	4.70	43	100			
Roche (BCG method)	11	4.29	3.43 - 5.15	4.29	2.98	201	99.5	99.0		
	12	2.83	2.26 - 3.40	2.83	3.82	201	99.0			
other providers	11	4.12	3.30 - 4.94	4.12	6.09	19	94.7	94.7		
	12	2.66	2.13 - 3.19	2.66	5.38	19	94.7			

Rate of success: 99%



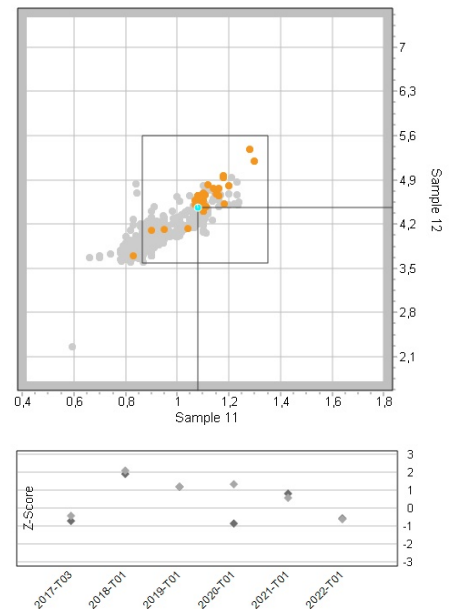
Aldolase (U/l, N = 29)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
all providers	11	2.47	0.770 - 4.17	2.47	28.1	29	93.1	93.1		
	12	0.856	0.000 - 2.56	0.856	61.8	29	93.1			

Rate of success: 93,1%



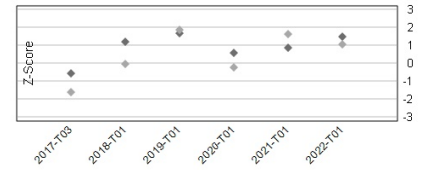
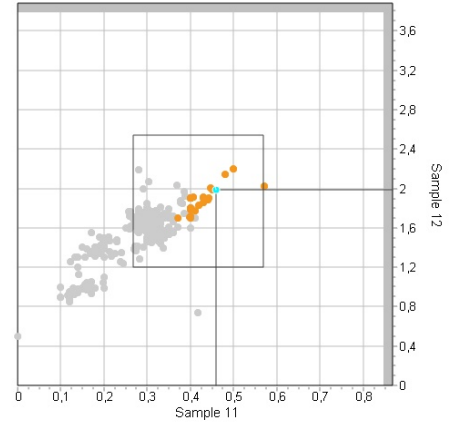
Bilirubin (mg/dl, N = 555)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Abbott	11	1.05	0.819 - 1.28	1.05	5.43	58	100	100		
	12	4.24	3.31 - 5.17	4.24	3.80	58	100			
Beckman (Olympus) AU-System	11	1.08	0.842 - 1.32	1.08	2.69	52	100	100		
	12	4.33	3.38 - 5.28	4.33	2.82	52	100			
Siemens (Bayer Health)	11	1.11	0.866 - 1.35	1.11	4.86	35	97.1	97.1		
	12	4.59	3.58 - 5.60	4.59	4.68	35	100			
Siemens (Dade Behring)	11	0.915	0.714 - 1.12	0.915	3.83	51	100	100		
	12	4.19	3.27 - 5.11	4.19	1.98	51	100			
Roche	11	0.865	0.675 - 1.06	0.865	4.39	323	99.7	99.4		
	12	3.86	3.01 - 4.71	3.86	2.93	323	99.4			
other providers	11	1.06	0.827 - 1.29	1.06	11.2	36	94.4	94.4		
	12	4.30	3.35 - 5.25	4.30	6.98	36	100			

Rate of success: 99,1%



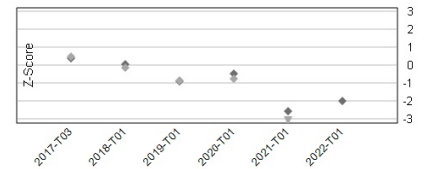
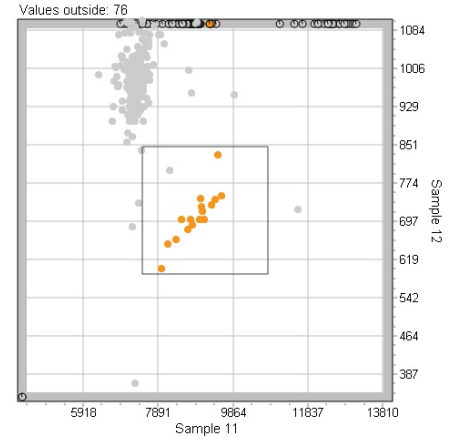
Bilirubin conj. (mg/dl, N = 479)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Abbott	11	0.328	0.210 - 0.446	0.328	7.01	54	100	100		
	12	1.54	0.986 - 2.09	1.54	3.96	54	100	100		
Beckman (Olympus) AU-System	11	0.185	0.118 - 0.252	0.185	10.3	46	100	100		
	12	1.39	0.890 - 1.89	1.39	4.96	46	100	100		
Siemens Atellica CH / Advia	11	0.418	0.268 - 0.568	0.418	6.70	29	96.6	96.6		
	12	1.87	1.20 - 2.54	1.87	6.10	29	100	100		
Siemens (Dade Behring)	11	0.140	0.090 - 0.190	0.140	15.7	36	94.4	94.4		
	12	0.963	0.616 - 1.31	0.963	4.88	36	100	100		
Roche	11	0.299	0.191 - 0.407	0.299	5.35	289	100	100		
	12	1.67	1.07 - 2.27	1.67	3.29	289	100	100		
other providers	11	0.256	0.164 - 0.348	0.256	43.8	25	64.0	64.0		
	12	1.31	0.838 - 1.78	1.31	25.0	25	92.0	92.0		

Rate of success: 97,5%

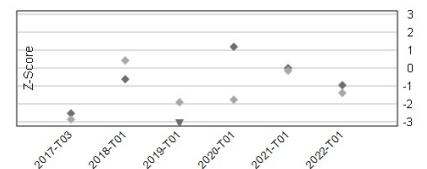
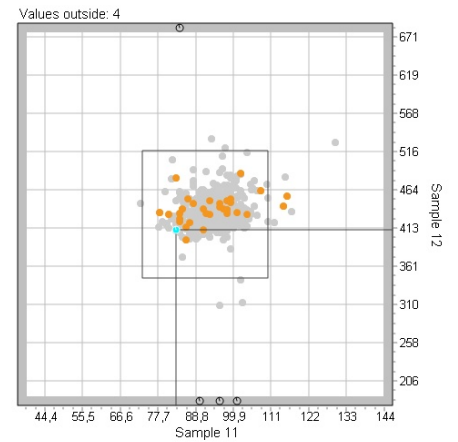


CHE (U/l, N = 398)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Abbott	11	8777	7197 - 10357	8777	2.38	38	100	94.7		
	12	1163	954 - 1372	1163	4.36	38	94.7	94.7		
Siemens (Dade Behring)	11	12349	10126 - 14572	12349	4.53	25	96.0	76.0		
	12	1497	1228 - 1766	1497	16.2	25	76.0	76.0		
Siemens (Si, BG)	11	9133	7489 - 10777	9133	4.68	33	100	48.5		
	12	719	590 - 848	719	8.03	33	48.5	48.5		
Olympus	11	7271	5962 - 8580	7271	6.52	41	100	95.1		
	12	1082	887 - 1277	1082	8.75	41	95.1	95.1		
Roche	11	7318	6001 - 8635	7318	2.01	261	99.6	97.7		
	12	980	804 - 1156	980	4.31	261	97.7	97.7		

Rate of success: 91,7%



CK (U/l, N = 535)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Abbott (RMV)	11	91.5	73.2 - 110	93.1	5.70	57	98.2	98.2		
	12	431	345 - 517	451	1.89	57	100	100		
Beckmann (Olympus)	11	91.5	73.2 - 110	95.8	6.80	60	98.3	96.7		
	12	431	345 - 517	466	3.03	60	98.3	98.3		
Siemens (Bayer Health)	11	91.5	73.2 - 110	92.9	9.71	34	94.1	94.1		
	12	431	345 - 517	437	3.48	34	100	100		
Siemens (Dade Behring)	11	91.5	73.2 - 110	91.1	5.88	48	100	100		
	12	431	345 - 517	416	2.08	48	100	100		
Ortho (Vitros)	11	91.5	73.2 - 110	100	4.29	3	100	100		
	12	321	257 - 385	321	6.57	3	100	100		
Roche - Integra	11	91.5	73.2 - 110	93.5	6.27	51	100	98.0		
	12	431	345 - 517	424	2.02	51	98.0	98.0		
Roche - other devices	11	91.5	73.2 - 110	93.9	6.37	260	99.2	97.7		
	12	431	345 - 517	424	2.10	260	98.5	98.5		



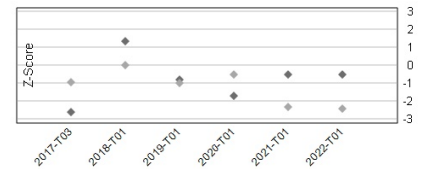
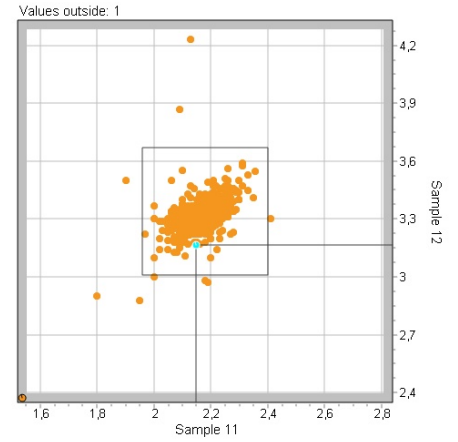
Collective	Sample	Target value	Target range	Participants collective			Rate (%)	
				AVG	CV	Num.	Sam.	total
other provider	11	91.5	73.2 - 110	93.4	7.14	22	95.5	95.5
	12	431	345 - 517	446	4.44	22	95.5	

Rate of success: 97,6%

Calcium (mmol/l, N = 559)									
Collective	Sample	Target value	Target range	Participants collective			Rate (%)		
				AVG	CV	Num.	Sam.	total	
ionized Calcium	(1) 11		Sample not evaluated			2			
	12		Sample not evaluated			2			
RMV	11	2.18	1.96 - 2.40	2.18	2.66	557	99.1	98.2	
	12	3.34	3.01 - 3.67	3.32	2.14	557	98.6		

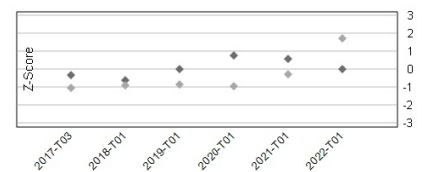
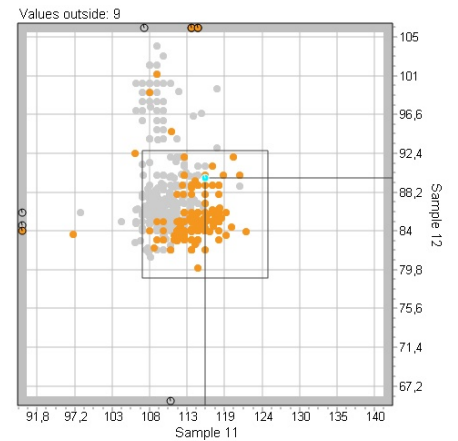
(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.

Rate of success: 98,2%



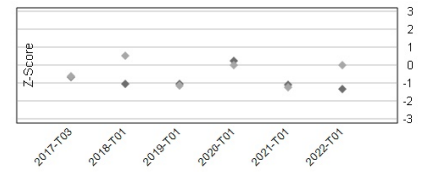
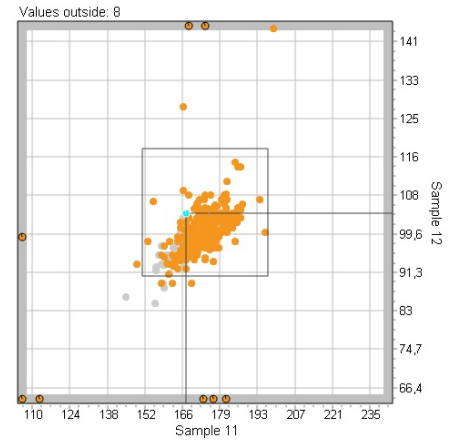
Chloride (mmol/l, N = 462)									
Collective	Sample	Target value	Target range	Participants collective			Rate (%)		
				AVG	CV	Num.	Sam.	total	
Siemens (Dade Behring) Dimension+	11	109	100 - 118	109	1.18	41	97.6	97.6	
	12	98.6	90.7 - 106	98.6	2.75	41	97.6		
Roche - without Integra	11	110	101 - 119	110	1.93	231	98.7	96.5	
	12	85.8	78.9 - 92.7	86.2	2.30	231	97.8		
Roche - Integra System	11	116	107 - 125	114	1.39	26	100	84.6	
	12	85.8	78.9 - 92.7	90.3	2.10	26	84.6		
other providers	11	116	107 - 125	115	2.19	164	98.2	94.5	
	12	85.8	78.9 - 92.7	85.3	2.64	164	96.3		

Rate of success: 95,2%



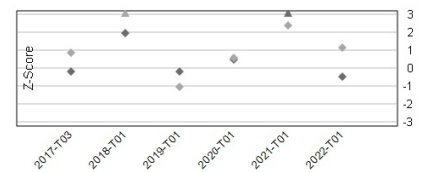
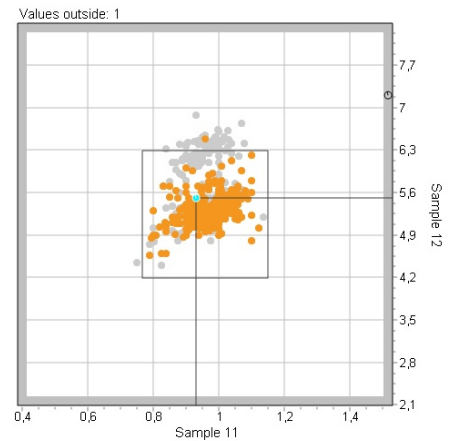
Cholesterol (mg/dl, N = 509)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Siemens (Dade Behring)	11	174	151	-	197	163	3.13	41	97.6	90.2
	12	104	90.5	-	118	95.4	3.98	41	90.2	
other providers	11	174	151	-	197	172	3.00	468	98.9	97.0
	12	104	90.5	-	118	99.5	3.16	468	97.6	

Rate of success: 96,5%



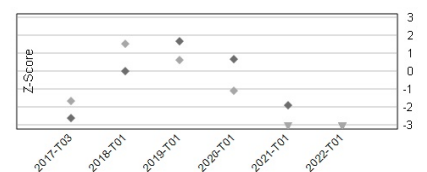
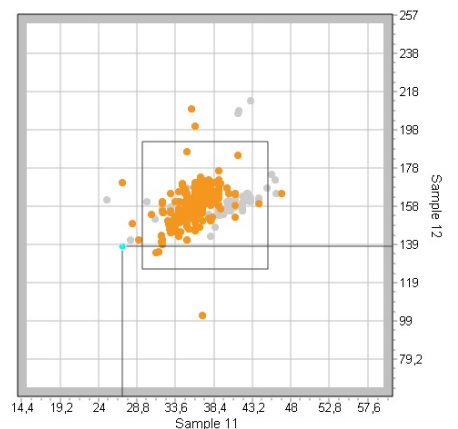
Creatinine (mg/dl, N = 602)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Abbott - Jaffe kinetic	11	0.960	0.768	-	1.15	0.970	5.26	44	100	100
	12	6.32	5.06	-	7.58	6.32	3.83	44	100	
Siemens (Dade Behring) - Jaffe-methods	11	0.960	0.768	-	1.15	0.939	4.79	48	100	100
	12	6.17	4.94	-	7.40	6.17	2.43	48	100	
Olympus AU system - enzymatic	11	0.960	0.768	-	1.15	0.988	3.34	13	100	100
	12	5.24	4.19	-	6.29	5.44	2.24	13	100	
Ortho (Vitros)	11	0.960	0.768	-	1.15	0.986	2.54	3	100	100
	12	5.24	4.19	-	6.29	5.33	3.15	3	100	
other devices Jaffe-methods	11	0.960	0.768	-	1.15	0.976	6.15	328	100	99.7
	12	5.24	4.19	-	6.29	5.30	4.34	328	99.7	
other methods	11	0.960	0.768	-	1.15	0.956	5.23	166	98.8	96.4
	12	5.24	4.19	-	6.29	5.35	2.84	166	97.0	

Rate of success: 98,8%



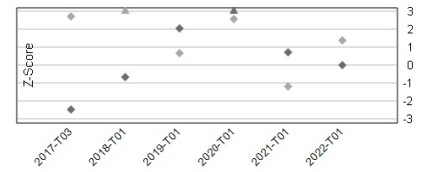
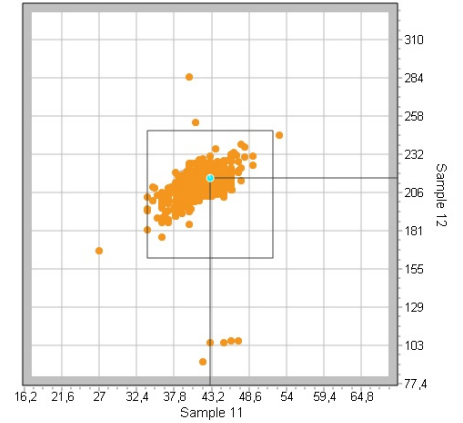
GGT (U/l, N = 558)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Ortho (Vitros)	11	37.3	29.5	-	45.1	42.0	2.43	3	100	0.000
	12	159	126	-	192	209	1.96	3	0.000	
Siemens (Bayer Health)	11	37.3	29.5	-	45.1	32.8	9.48	15	86.7	86.7
	12	159	126	-	192	158	2.36	15	100	
Siemens (Dade Behring)	11	37.3	29.5	-	45.1	41.1	4.99	53	94.3	94.3
	12	159	126	-	192	159	2.55	53	100	
other providers	11	37.3	29.5	-	45.1	36.1	3.71	487	99.0	98.4
	12	159	126	-	192	160	3.60	487	99.4	

Rate of success: 97,1%



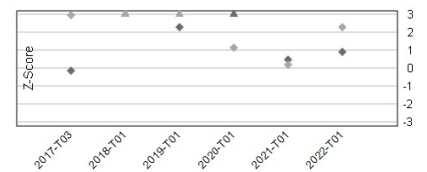
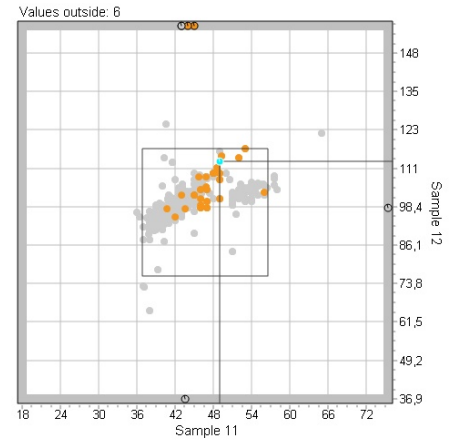
GOT (U/l, N = 558)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Ortho (Vitros)	11	43.0	34.0	-	52.0	38.5	3.35	3	100	100
	12	205	162	-	248	215	2.91	3	100	
other providers	11	43.0	34.0	-	52.0	41.6	5.91	555	99.6	98.4
	12	205	162	-	248	213	3.68	555	98.7	

Rate of success: 98,4%



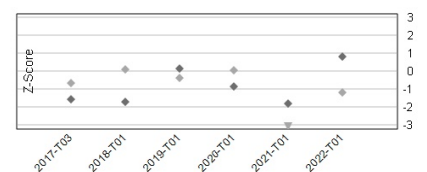
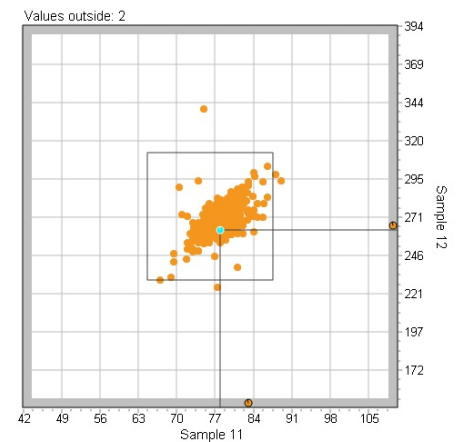
GPT (U/l, N = 562)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Siemens (Bayer Health)	11	46.7	36.9	-	56.5	46.7	5.57	34	100	91.2
	12	96.5	76.2	-	117	106	6.84	34	91.2	
Siemens (Dade Behring)	11	53.5	42.3	-	64.7	53.5	4.02	53	98.1	98.1
	12	96.5	76.2	-	117	103	2.53	53	98.1	
Ortho (Vitros)	11	41.9	33.1	-	50.7	37.8	3.81	3	100	33.3
	12	96.5	76.2	-	117	74.6	4.84	3	33.3	
other providers	11	41.9	33.1	-	50.7	41.3	4.43	472	99.6	98.7
	12	96.5	76.2	-	117	97.4	3.14	472	99.2	

Rate of success: 97,9%



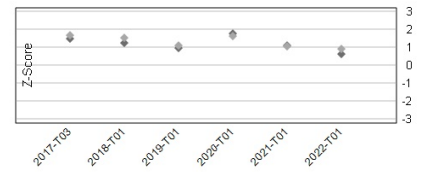
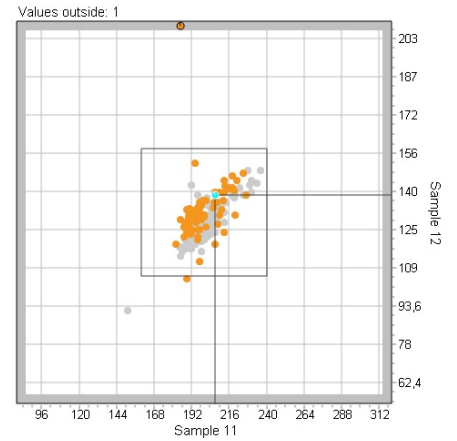
Glucose (mg/dl, N = 575)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
all providers (RMV)	11	76.1	64.7	-	87.5	77.8	2.96	575	99.5	99.0
	12	271	230	-	312	268	2.82	575	99.5	

Rate of success: 99%



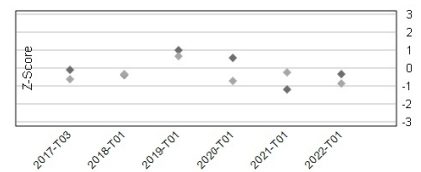
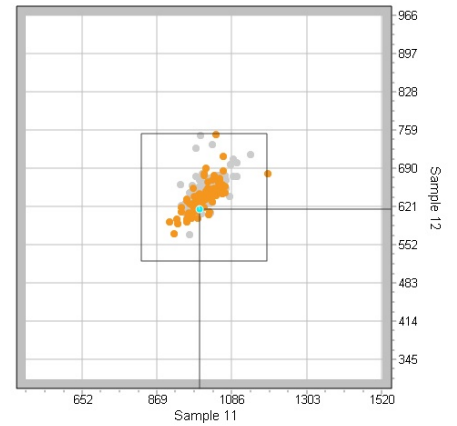
IgA (mg/dl, N = 229)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Siemens (Dade Behring)	11	220	176	-	264	220	5.18	21	100	100
	12	139	111	-	167	139	5.42	21	100	
Roche	11	200	160	-	240	200	2.94	129	99.2	99.2
	12	126	101	-	151	126	4.02	129	99.2	
other providers	11	200	160	-	240	200	5.70	79	100	97.5
	12	132	106	-	158	132	5.83	79	97.5	

Rate of success: 98,7%



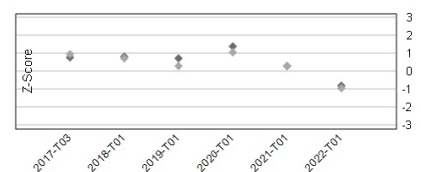
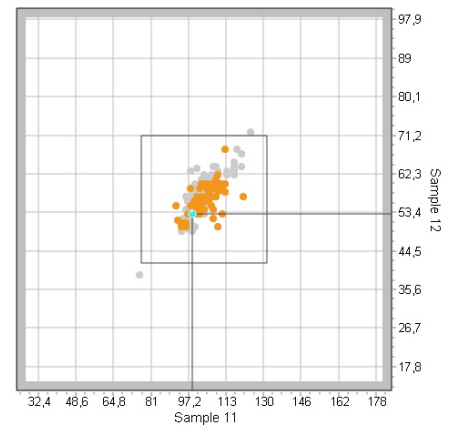
IgG (mg/dl, N = 238)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Siemens (Dade Behring)	11	1044	856	-	1232	1044	4.80	22	100	100
	12	659	540	-	778	659	5.25	22	100	
Roche	11	1005	824	-	1186	1005	2.59	130	100	100
	12	646	530	-	762	646	3.07	130	100	
other providers	11	1006	825	-	1187	1006	3.92	86	98.8	98.8
	12	638	523	-	753	638	4.11	86	100	

Rate of success: 99,6%



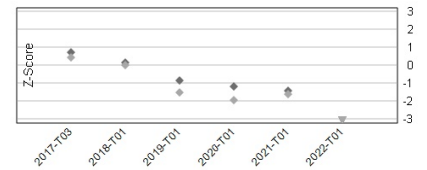
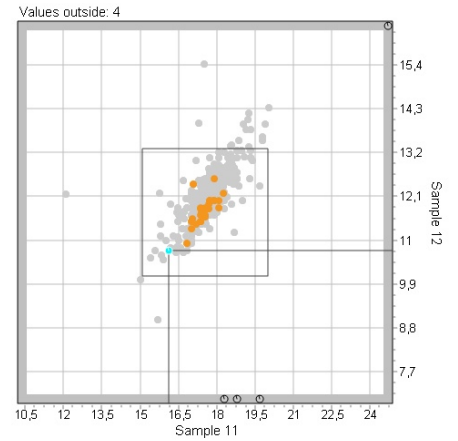
IgM (mg/dl, N = 224)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Siemens (Dade Behring) -Nephelometry	11	113	83.6	-	142	113	6.60	19	100	100
	12	62.2	46.0	-	78.4	62.2	6.96	19	100	
Roche	11	102	75.5	-	129	102	3.22	127	100	99.2
	12	56.0	41.4	-	70.6	56.0	4.98	127	99.2	
other providers	11	104	77.0	-	131	104	5.77	78	100	100
	12	56.4	41.7	-	71.1	56.4	6.38	78	100	

Rate of success: 99,6%



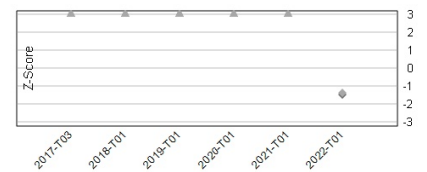
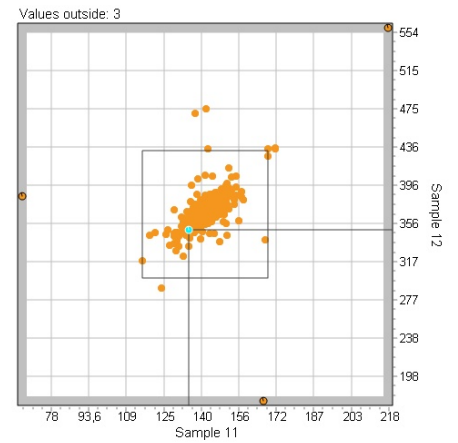
Iron ($\mu\text{mol/l}$, N = 468)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Abbott	11	18.1	15.6 - 20.6	18.1	4.72	55	98.2	98.2		
	12	12.5	10.8 - 14.3	12.5	4.96	55	98.2			
Beckman (Olympus)	11	17.2	14.8 - 19.6	17.2	2.83	53	100	98.1		
	12	11.9	10.2 - 13.6	11.9	4.05	53	98.1			
Siemens (Bayer Health)	11	17.5	15.1 - 20.0	17.5	2.23	31	100	100		
	12	11.7	10.1 - 13.3	11.7	2.56	31	100			
Siemens (Dade Behring)	11	17.1	14.7 - 19.5	17.1	1.94	37	100	100		
	12	11.2	9.63 - 12.8	11.2	3.03	37	100			
Roche	11	17.8	15.3 - 20.3	17.8	2.54	269	99.6	97.8		
	12	12.2	10.5 - 13.9	12.2	3.19	269	98.1			
other providers	11	17.6	15.1 - 20.1	17.6	6.42	23	100	100		
	12	12.2	10.5 - 13.9	12.2	6.61	23	100			

Rate of success: 98,3%



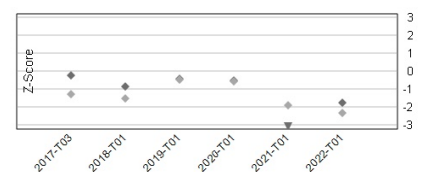
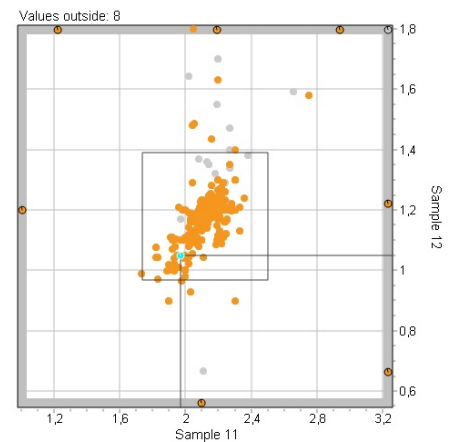
LDH (U/l, N = 538)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
all providers (RMV)	11	142	116 - 168	143	3.36	538	99.3	98.1		
	12	366	300 - 432	370	3.14	538	98.3			

Rate of success: 98,1%



Lactate (mmol/l, N = 396)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
M.42	11	2.20	1.80 - 2.60	2.20	6.09	19	89.5	68.4		
	12	1.41	1.16 - 1.66	1.41	15.9	19	73.7			
other methods	11	2.12	1.74 - 2.50	2.12	4.01	377	98.1	94.4		
	12	1.18	0.968 - 1.39	1.18	4.75	377	95.2			

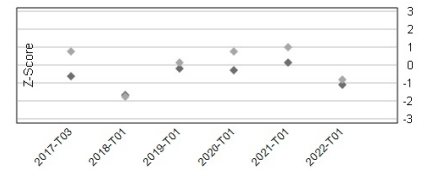
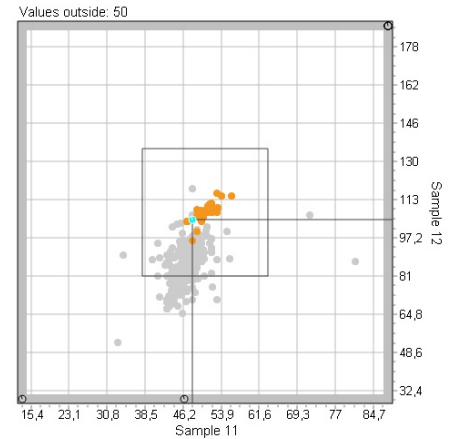
Rate of success: 93,2%



Lipase (U/l, N = 518)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Abbott	11	47.5	35.6	-	59.4	47.5	5.26	44	97.7	97.7
	12	85.4	64.1	-	107	85.4	9.85	44	100	
Siemens (Bayer Health)	11	50.6	38.0	-	63.3	50.6	4.70	33	100	100
	12	108	81.0	-	135	108	3.33	33	100	
Siemens (Dade Behring)	11	160	120	-	200	160	6.31	46	93.5	93.5
	12	270	203	-	338	270	4.89	46	93.5	
Beckmann (Olympus)	11	46.7	35.0	-	58.4	46.7	5.31	55	98.2	94.5
	12	93.6	70.2	-	117	93.6	4.73	55	94.5	
Ortho (Vitros) (1)	11	310	233	-	388	310	2.44	3		
	12	1259	944	-	1574	1259	0.858	3		
G.RO56, RO71, RO73	11	46.8	35.1	-	58.5	46.8	3.76	236	100	99.6
	12	84.4	63.3	-	106	84.4	5.27	236	99.6	
Roche other systems	11	46.2	34.7	-	57.8	46.2	3.70	74	100	100
	12	81.2	60.9	-	102	81.2	6.75	74	100	
other providers	11	45.6	34.2	-	57.0	45.6	7.83	27	88.9	85.2
	12	76.3	57.2	-	95.4	76.3	12.5	27	88.9	

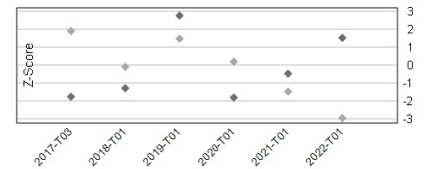
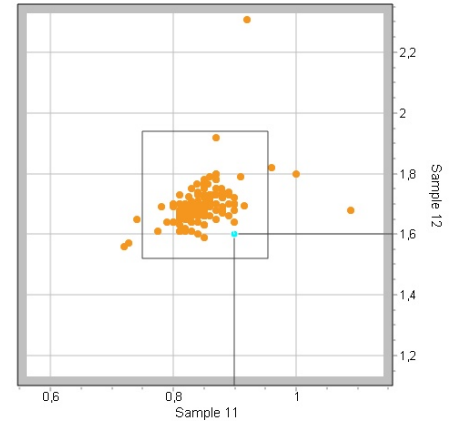
(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.

Rate of success: 97,7%



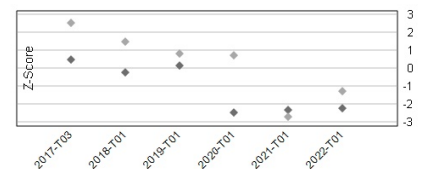
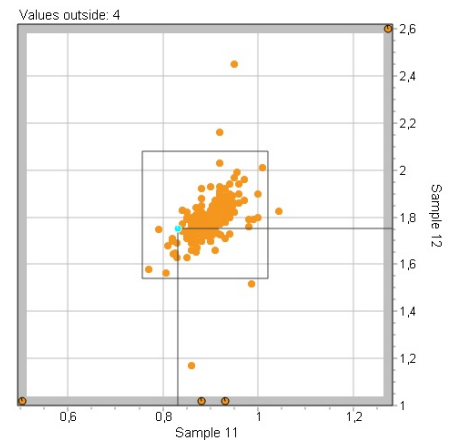
Lithium (mmol/l, N = 155)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
all providers (RMV)	11	0.852	0.750	-	0.954	0.845	3.67	155	96.1	95.5
	12	1.73	1.52	-	1.94	1.69	2.60	155	99.4	

Rate of success: 95,5%



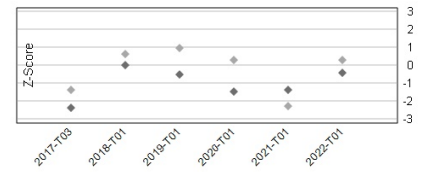
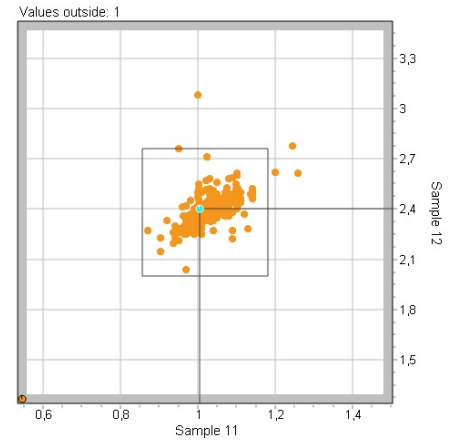
Magnesium (mmol/l, N = 412)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
all providers (RMV)	11	0.891	0.757	-	1.02	0.897	3.01	412	99.3	97.8
	12	1.81	1.54	-	2.08	1.79	2.57	412	98.1	

Rate of success: 97,8%



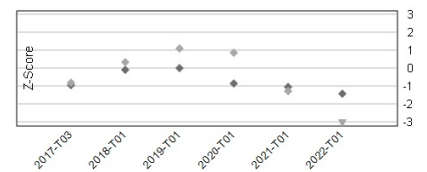
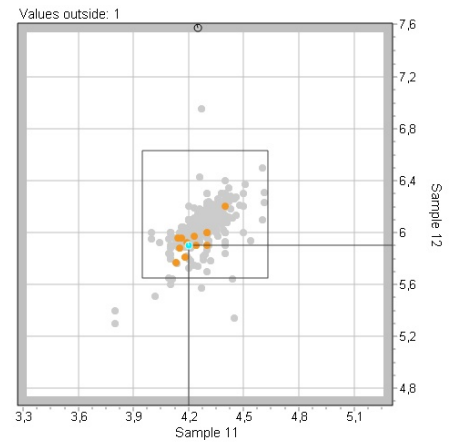
Phosphate (mmol/l, N = 431)										
Collective	Sample	Target value	Target range		Participants collective			Rate (%)		
					AVG	CV	Num.	Sam.	total	
all providers	11	1.02	0.857	-	1.18	1.02	3.53	431	99.1	98.8
	12	2.38	2.00	-	2.76	2.38	2.69	431	99.3	

Rate of success: 98,8%



Potassium (mmol/l, N = 564)										
Collective	Sample	Target value	Target range		Participants collective			Rate (%)		
					AVG	CV	Num.	Sam.	total	
R.KN, OR, TS	11	4.29	3.95	-	4.63	4.40	1.70	10	100	80.0
	12	6.14	5.65	-	6.63	5.87	3.25	10	80.0	
Siemens	11	4.29	3.95	-	4.63	4.21	1.47	19	100	100
Atellica CH	12	6.14	5.65	-	6.63	5.92	0.963	19	100	
other providers	11	4.29	3.95	-	4.63	4.28	1.75	535	99.6	98.5
	12	6.14	5.65	-	6.63	6.06	1.50	535	98.5	

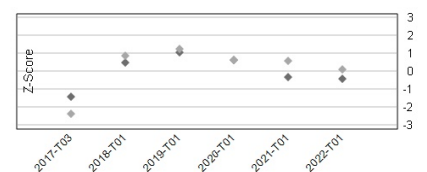
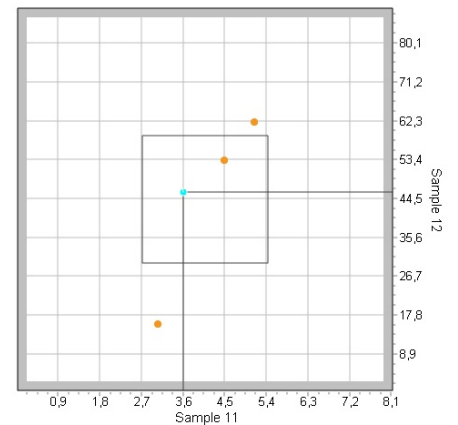
Rate of success: 98,2%



Prostatic Acid Posphatase (U/l, N = 4)										
Collective	Sample	Target value	Target range		Participants collective			Rate (%)		
					AVG	CV	Num.	Sam.	total	
all providers (1)	11	4.08	2.73	-	5.43	4.08	26.0	4		
	12	44.3	29.7	-	58.9	44.3	51.5	4		

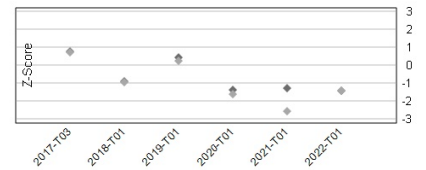
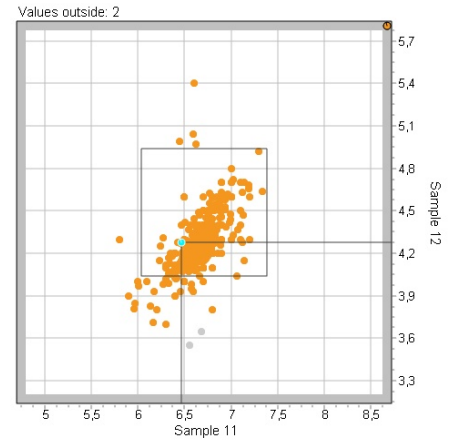
(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.

Rate of success: 50%



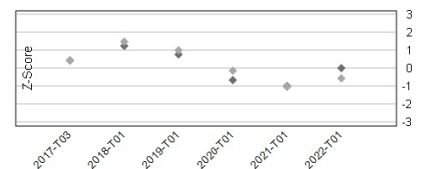
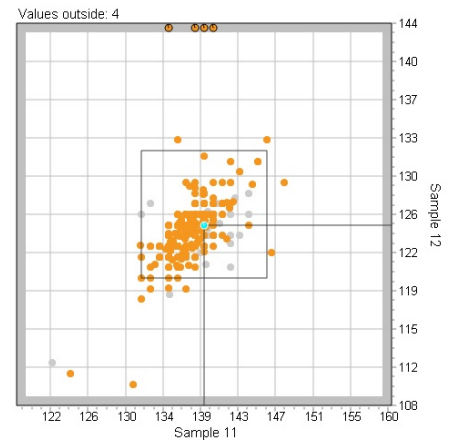
Protein (g/dl, N = 555)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Ortho (Vitros)	11	6.71	6.04 - 7.38	6.62	1.57	2	100	0.000		
	12	4.49	4.04 - 4.94	3.60	2.22	2	0.000			
other providers	11	6.71	6.04 - 7.38	6.66	2.49	553	98.6	92.8		
	12	4.49	4.04 - 4.94	4.27	3.42	553	92.9			

Rate of success: 92,4%



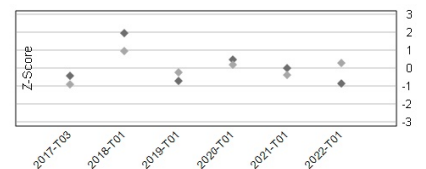
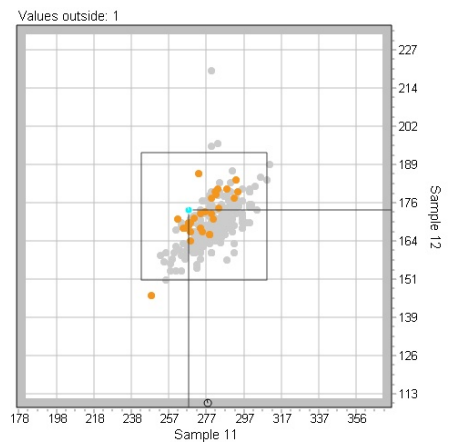
Sodium (mmol/l, N = 561)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
R.KN, OR, TS	11	139	132 - 146	141	0.723	9	100	100		
	12	126	120 - 132	124	1.19	9	100			
ISE, direct potentiometry	11	139	132 - 146	138	1.78	30	96.7	93.3		
	12	126	120 - 132	125	1.95	30	93.3			
other methods	11	139	132 - 146	137	1.33	522	99.2	97.3		
	12	126	120 - 132	124	1.36	522	97.7			

Rate of success: 97,1%



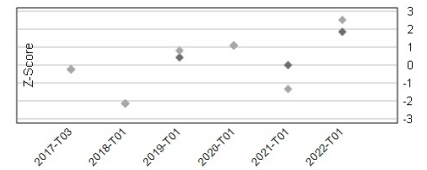
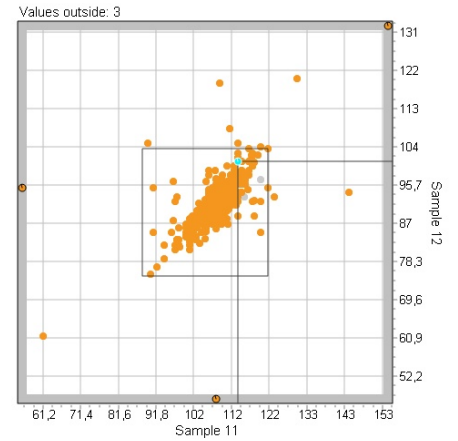
Transferrine (mg/dl, N = 304)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
Abbott	11	282	248 - 316	282	3.08	24	100	100		
	12	169	149 - 189	169	2.76	24	100			
Beckman (Olympus)	11	274	241 - 307	274	3.46	33	100	100		
	12	168	148 - 188	168	4.54	33	100			
Siemens Dimension +	11	270	238 - 302	270	4.07	16	100	100		
	12	161	142 - 180	161	3.07	16	100			
Siemens other devices	11	276	243 - 309	276	3.32	31	100	96.8		
	12	172	151 - 193	172	3.88	31	96.8			
Roche / other providers	11	283	249 - 317	283	3.02	200	100	98.0		
	12	170	150 - 190	170	3.19	200	98.0			

Rate of success: 98,4%



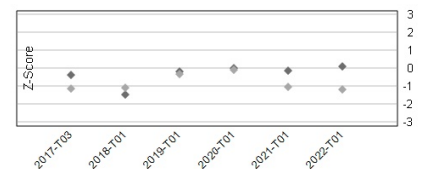
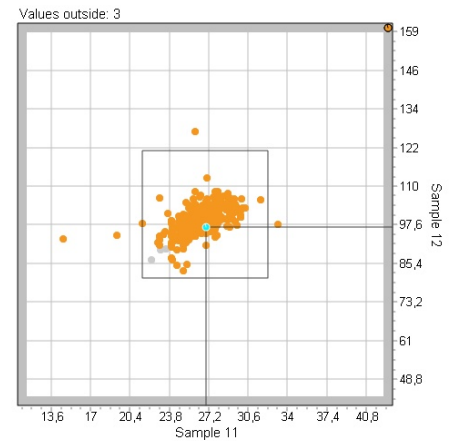
Triglycerides (mg/dl, N = 512)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Ortho (Vitros)	11	105	88.2	-	122	117	2.96	3	100	100
	12	89.3	75.0	-	104	95.5	2.59	3	100	
other providers	11	105	88.2	-	122	109	4.44	509	98.8	97.8
	12	89.3	75.0	-	104	92.9	4.97	509	98.4	

Rate of success: 97,9%



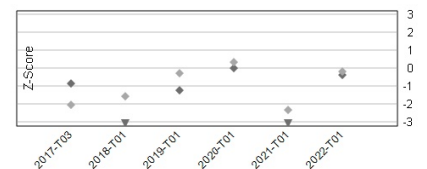
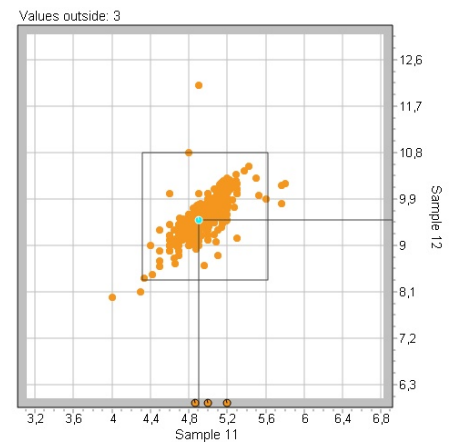
Urea (mg/dl, N = 554)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Ortho (Vitros)	11	26.9	21.5	-	32.3	22.9	3.30	3	100	100
	12	101	80.8	-	121	88.7	2.44	3	100	
other providers	11	26.9	21.5	-	32.3	26.3	4.71	551	98.9	98.7
	12	101	80.8	-	121	98.9	3.43	551	99.3	

Rate of success: 98,7%



Uric Acid (mg/dl, N = 549)										
Collective	Sample	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
all providers (RMV)	11	4.97	4.32	-	5.62	4.94	3.52	549	99.1	98.4
	12	9.57	8.33	-	10.8	9.53	3.43	549	98.9	

Rate of success: 98,4%



alpha-Amylase (U/l, N = 306)										
Collective	Sam- ple	Target value	Target range			Participants collective			Rate (%)	
						AVG	CV	Num.	Sam.	total
Abbott	11	102	71.4	-	133	102	7.39	40	100	100
	12	443	310	-	576	443	7.61	40	100	
Beckman (Olympus)	11	103	72.1	-	134	103	3.58	44	100	100
	12	396	277	-	515	396	3.08	44	100	
Siemens (Bayer Health)	11	101	70.7	-	131	101	6.95	24	100	100
	12	401	281	-	521	401	8.18	24	100	
Siemens (Dade Behring)	11	97.1	68.0	-	126	97.1	2.01	31	96.8	96.8
	12	482	337	-	627	482	1.71	31	96.8	
Ortho (Vitros) (1)	11	82.1	57.5	-	107	82.1	2.52	3		
	12	206	144	-	268	206	0.000	3		
Roche	11	97.5	68.3	-	127	97.5	1.86	147	100	98.6
	12	371	260	-	482	371	1.95	147	98.6	
other providers	11	102	71.4	-	133	102	7.73	17	100	94.1
	12	422	295	-	549	422	5.05	17	94.1	

(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.

Rate of success: 98,7%

