LABQUALITY

External Quality Assessment Scheme

General Clinical Chemistry, Daytrol Rounds 1-12, 2023

Store this instruction, as it applies to the whole year of 2023.

Specimen
Please find enclosed lyophilized human serum samples, Daytrol (DT23) each 5 mL, according to your order for the whole year of 2022. They can be used from the 1st January 2023 onwards.

Caution
Quality control specimens derived from human blood must be handled with the same care as patient samples, i.e. as potential transmitters of serious diseases. The specimens are found to be HBsAg, HCVAb and HIVAgAb negative when tested with licensed reagents, but no known test method can offer complete assurance that the specimens will not transmit these or other infectious diseases.

Examinations
Please see page 3.

Storage and use
After arrival, store the unopened lyophilized samples at +2 … 8 °C. Before analysis, open the vial carefully to prevent escape of dried material. Add 5 mL of high-grade room temperature laboratory water and immediately close the vial and let stand at room temperature, protected from light, for about half an hour until all the material is completely dissolved. Invert the vial several times to dissolve any material adhering to the stopper. Analyze as a patient sample.

After use, the remaining serum is divided, if necessary, into batches, which are transferred to + 2 … 8 °C. After reconstitution, the sample is valid for 5 days at + 2 … 8 °C. Take the serum sample to the room temperature shortly before use, so that it reaches room temperature before analysis.

Result reporting and methods
The round number equals the month in question. Report the results via LabScala (www.labscala.com) on the last day of each month.

Method information will be given in LabScala. The device, reagent, method, chemical principle, and unit are given in the device registry. The reagent manufacturer is selected as the method. We kindly ask you to verify that your methods in LabScala are correct. If necessary, contact the EQA Coordinator, if you cannot find the correct device or reagent in LabScala. An example of the view in the device registry is given on the page two of this instruction letter.

We kindly ask you to notice that we will no longer provide a separate target value table of the results, (which has been provided twice a year before). Laboratories should compare their results to the monthly delivered summary reports and to the assigned values found there. These results are the most accurate and current ones. Therefore, the assigned values and target areas for example of Round 1, January will be available in the beginning of February.

General Clinical Chemistry, Daytrol

Methods in Labscala

My Registry ➡ My Devices

General Clinical Chemistry, Daytrol

Examinations

Na	Pi	Fe
K	Uric acid	Transf
Cl	Chol	T4
Lactate	Trigly	GT
Crea	Bil	TSH
Urea	ALP	T4-free
Prot	AMYL	Chol-HDL
Alb	AST	OSMOL
Gluc	ALT	TfR
Ca	CK	Lithium
Mg	LD	

DayTrol | ALT | BTS 310

ALT

Legend:
- All method groups
- IFCC methods without P-5-P (ALT)
- X_o: 80 | X_{pt}: 74 |
- $X_o \pm 2sd$: 71 - 88 |
- Target area: 65-83 | Target: ±12%

Variation of own results
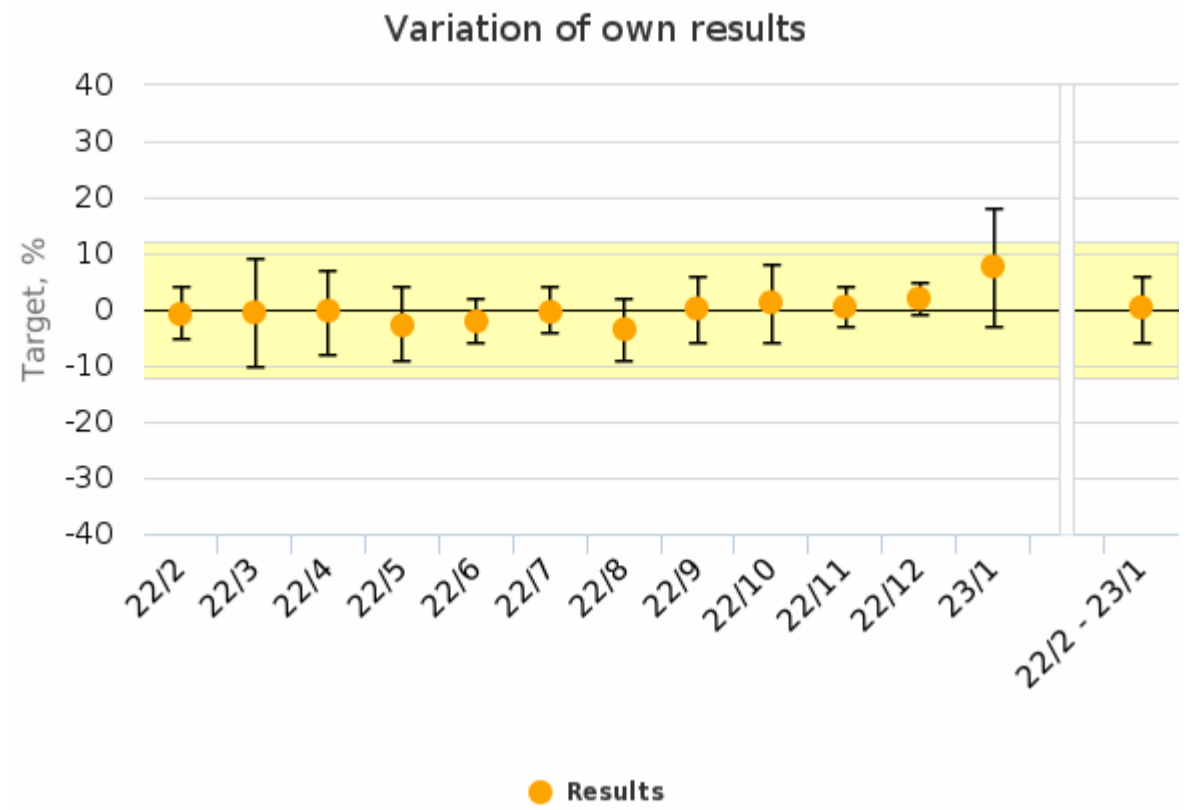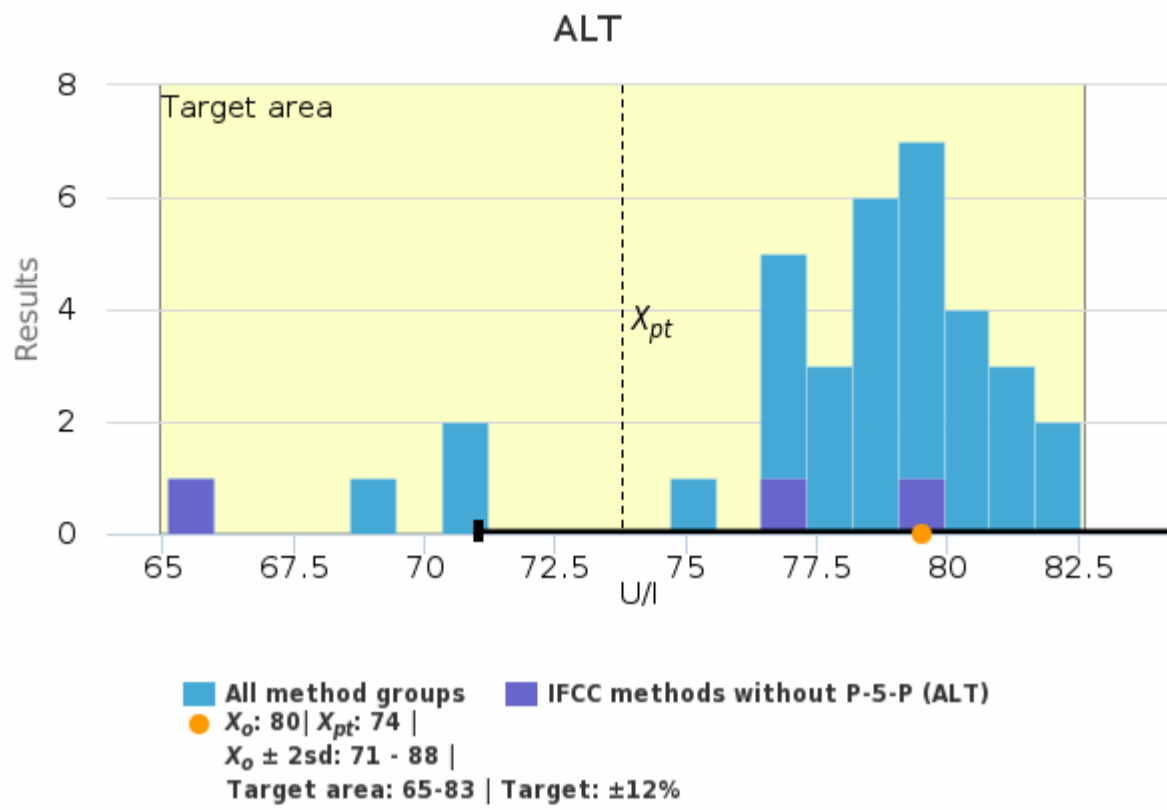
- Results

Coordinator:

	X_{pt}	X_{pt} ±12%	Diff%	CV% target	CV50%	CV90%	n devices	n results
IFCC methods without P-5-P (ALT)	74	65 - 83	7.7	4.0	1.9	5.3	3	38
All methods	78	-	1.5	4.0	2.8	4.7	35	524

Round	X_o	X_{pt} ±12%	sd	CV%	n results
22/2	69	61 - 78	2	2	11
22/3	70	62 - 79	3	5	11
22/4	69	61 - 78	3	4	11
22/5	68	62 - 79	2	3	11
22/6	68	61 - 78	1	2	8
22/7	69	61 - 78	1	2	11
22/8	68	62 - 79	2	3	10
22/9	70	62 - 79	2	3	9
22/10	70	61 - 78	2	4	11
22/11	69	61 - 77	1	2	9
22/12	70	60 - 77	1	2	12
23/1	80	65 - 83	4	5	10
22/2 - 23/1	70	-	2	3	124

Laboratory's analytical performance

January - Internal CV% (compared to all methodicses)
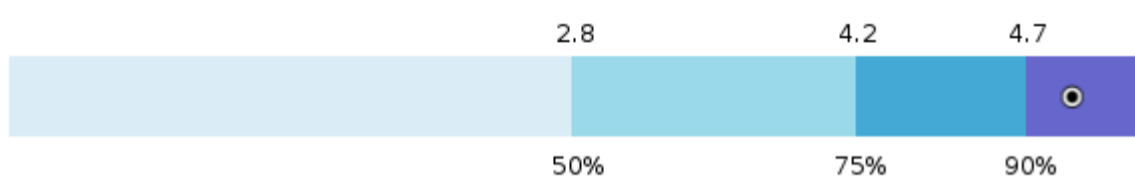
January - Diff% (bias) (compared to all methodicses)

7 / 10 of your results this month are within the target area of your method group.

DayTrol | AST | BTS 310

AST

Legend: All method groups | IFCC without P-5-P (AST) | X_o: 76 | X_{pt}: 76 | $X_o \pm 2sd$: 70 - 82

Variation of own results

Legend: Results

Coordinator:

	X_{pt}	$X_{pt} \pm 12\%$	Diff%	CV% target	CV50%	CV90%	n devices	n results
IFCC without P-5-P (AST)	76	67 - 85	-	4.0	4.1	4.1	1	10
All methods	78	-	-3.2	4.0	2.6	3.5	27	400

Round	X_o	$X_{pt} \pm 12\%$	sd	CV%	n results
22/2	60	55 - 70	2	4	11
22/3	62	58 - 73	1	2	10
22/4	62	59 - 75	2	4	10
22/5	61	57 - 73	2	3	11
22/6	61	58 - 74	2	3	9
22/7	61	61 - 78	2	3	11
22/8	62	60 - 76	3	5	10
22/9	66	61 - 78	1	2	10
22/10	67	61 - 77	2	3	11
22/11	67	61 - 78	2	3	9
22/12	69	62 - 79	1	1	12
23/1	76	67 - 85	3	4	10
22/2 - 23/1	64	-	2	3	124

Laboratory's analytical performance

January - Internal CV% (compared to all methodicses)

January - Diff% (bias) (compared to all methodicses)

10 / 10 of your results this month are within the target area of your method group.

DayTrol | Bil, tot | BTS 310

Bil, tot

All method groups   Photometry (Bil)
X_o: 37.2 | X_{pt}: 35.5 |
$X_o \pm 2sd$: 35.6 - 38.8 |
Target area: 31.2-39.7 | Target: ±12%

Variation of own results
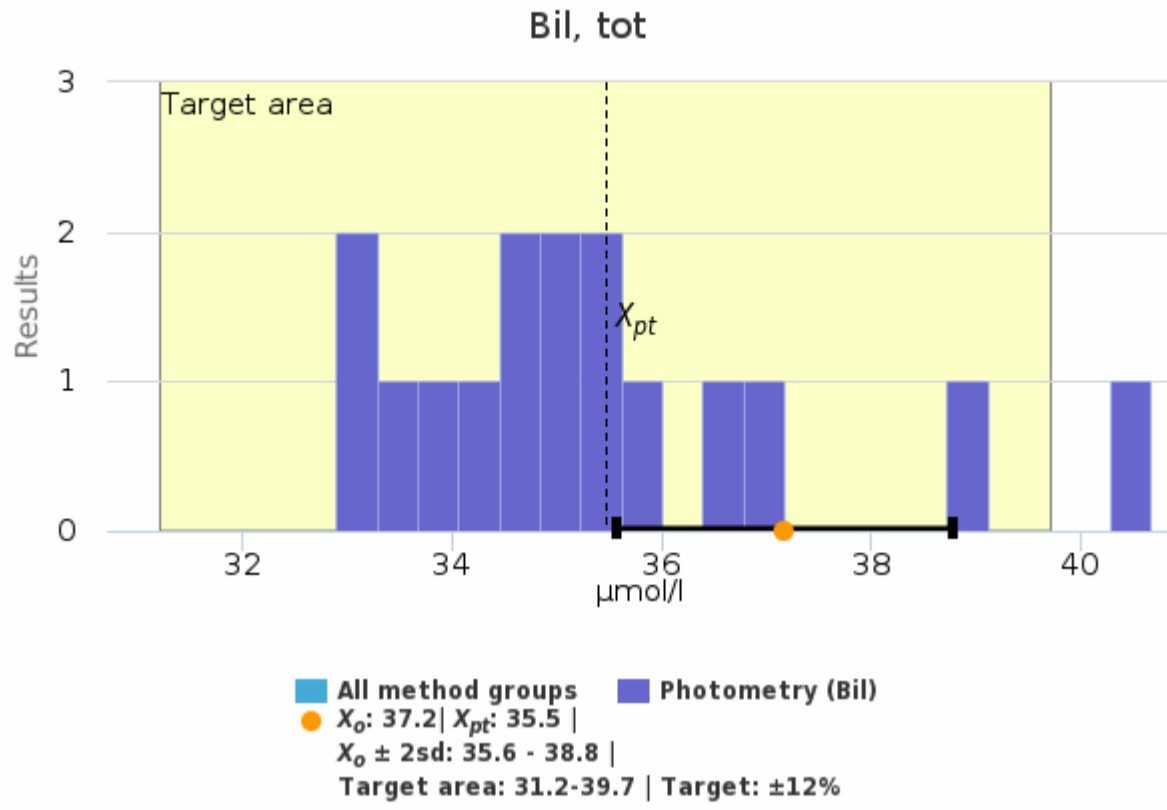
Results

Coordinator:

	X_{pt}	X_{pt} ±12%	Diff%	CV% target	CV50%	CV90%	n devices	n results
Photometry (Bil)	35.5	31.2 - 39.7	4.8	3.4	2.8	5.1	16	244
All methods	35.5	-	4.8	3.4	2.8	5.1	16	244

Round	X_o	X_{pt} ±12%	sd	CV%	n results
22/2	37.7	33.4 - 42.5	1.6	4.2	11
22/3	37.2	32.9 - 41.8	0.9	2.5	11
22/4	38.1	33.2 - 42.2	1.0	2.6	10
22/5	37.4	32.8 - 41.8	1.4	3.8	10
22/6	37.0	32.7 - 41.6	1.5	4.2	8
22/7	37.2	32.9 - 41.8	1.3	3.6	10
22/8	37.4	33.1 - 42.1	1.4	3.8	9
22/9	37.5	33.2 - 42.2	1.2	3.1	10
22/10	37.7	32.8 - 41.8	1.4	3.7	11
22/11	36.3	33.1 - 42.1	0.5	1.4	9
22/12	36.6	33.1 - 42.1	0.8	2.3	12
23/1	37.2	31.2 - 39.7	0.8	2.2	9
22/2 - 23/1	37.3	-	1.2	3.1	120

Laboratory's analytical performance

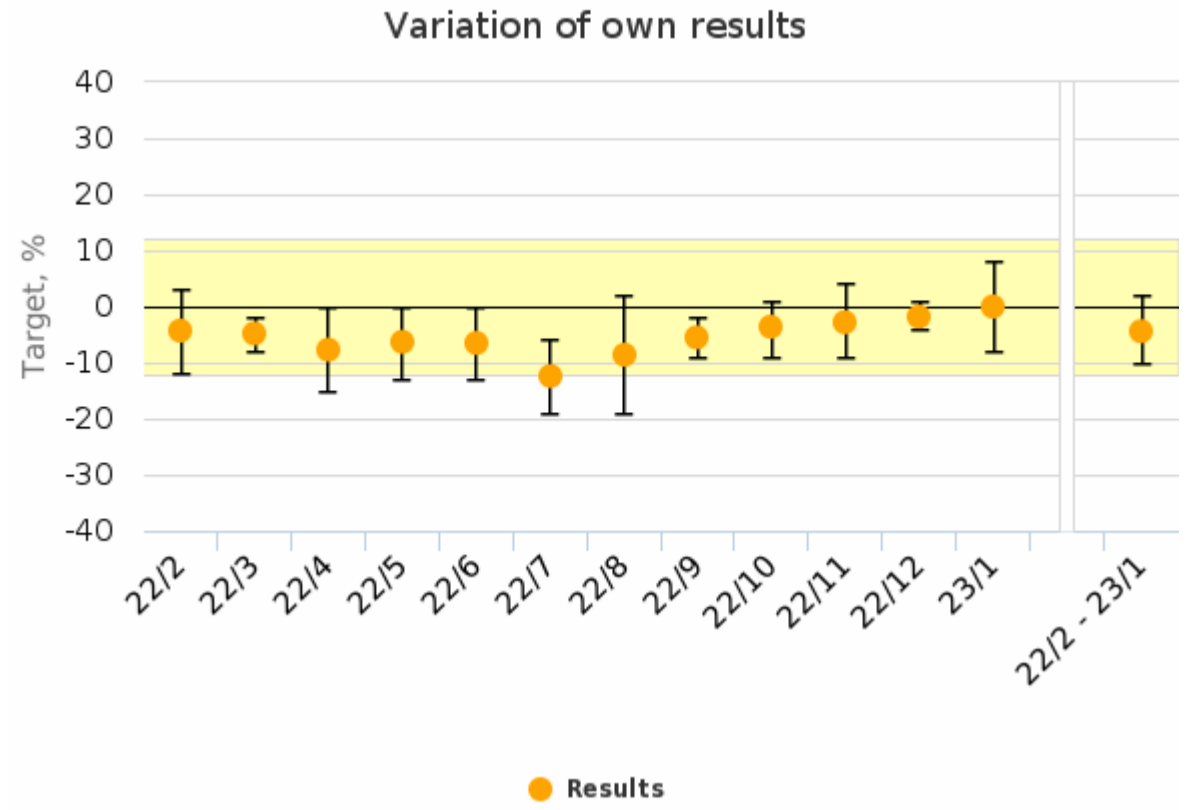### January - Internal CV% (compared to all methodicses)
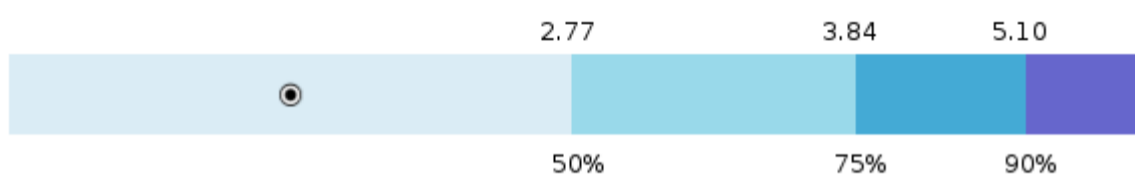
January - Diff% (bias) (compared to all methodicses)

9 / 9 of your results this month are within the target area of your method group.

DayTrol | GT | BTS 310

GT

Legend:
- All method groups
- IFCC methods (GGT)

X_o: 50 | X_{pt}: 49 |
$X_o \pm 2sd$: 48 - 52 |
Target area: 43-55 | Target: ±12%

Variation of own results
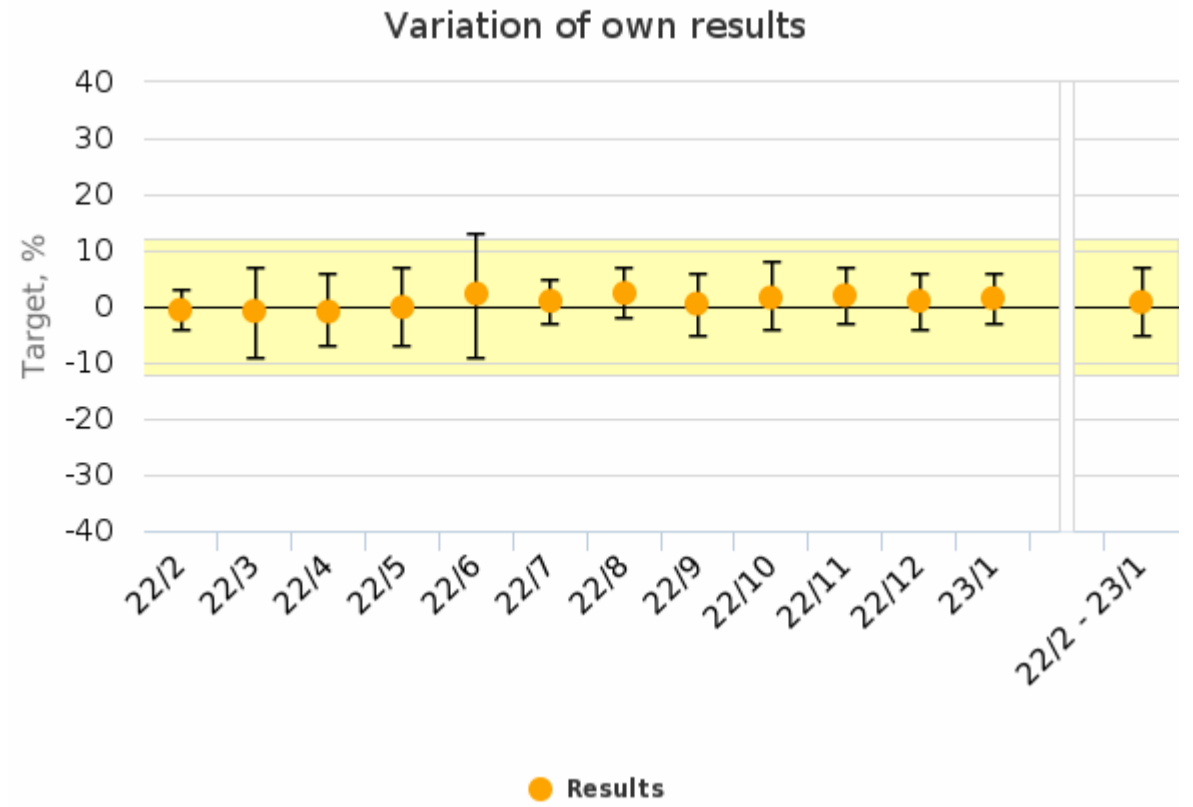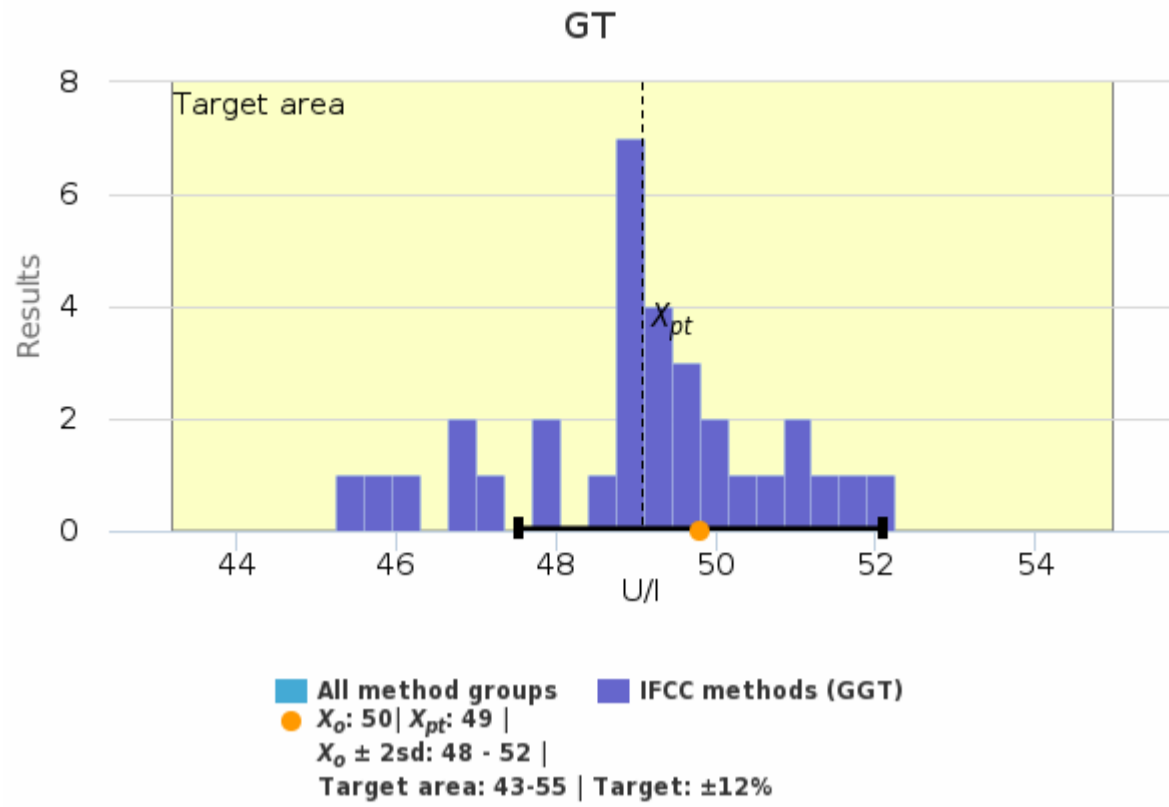
- Results

Coordinator:

	X_{pt}	$X_{pt} \pm 12\%$	Diff%	CV% target	CV50%	CV90%	n devices	n results
IFCC methods (GGT)	49	43 - 55	1.5	4.0	2.7	4.2	32	488
All methods	49	-	1.5	4.0	2.7	4.2	32	488

Round	X_o	$X_{pt} \pm 12\%$	sd	CV%	n results
22/2	48	43 - 54	1	2	11
22/3	48	43 - 54	2	4	11
22/4	48	43 - 54	2	3	11
22/5	48	42 - 54	2	4	11
22/6	49	42 - 54	3	6	8
22/7	49	42 - 54	1	2	10
22/8	49	42 - 54	1	2	9
22/9	48	42 - 54	1	3	10
22/10	49	42 - 54	1	3	11
22/11	49	42 - 54	1	2	9
22/12	49	43 - 55	1	3	12
23/1	50	43 - 55	1	2	10
22/2 - 23/1	49	-	1	3	123

Laboratory's analytical performance
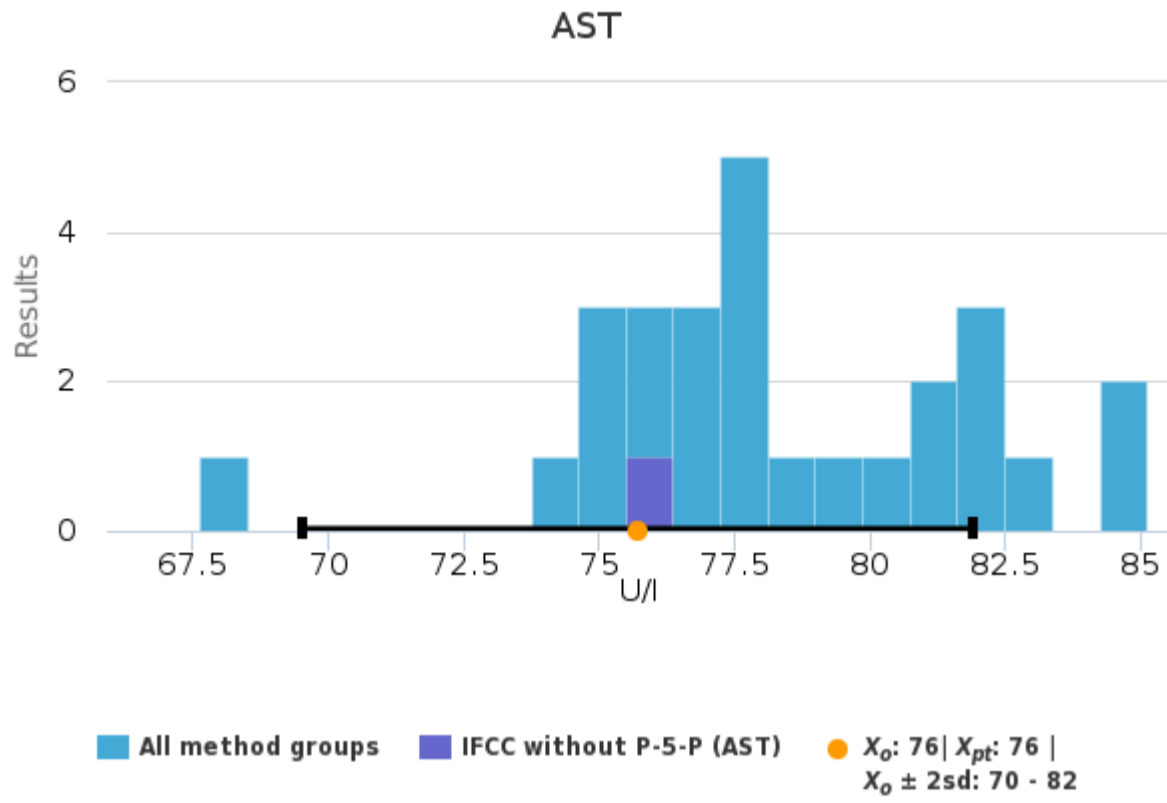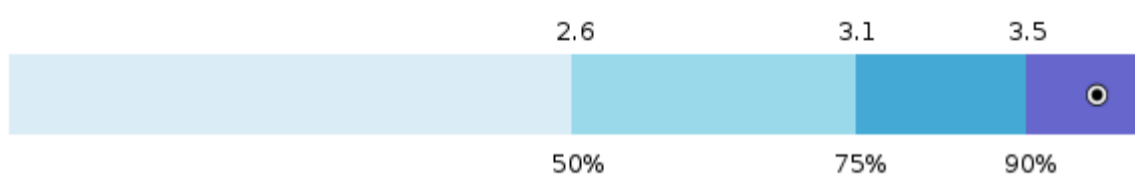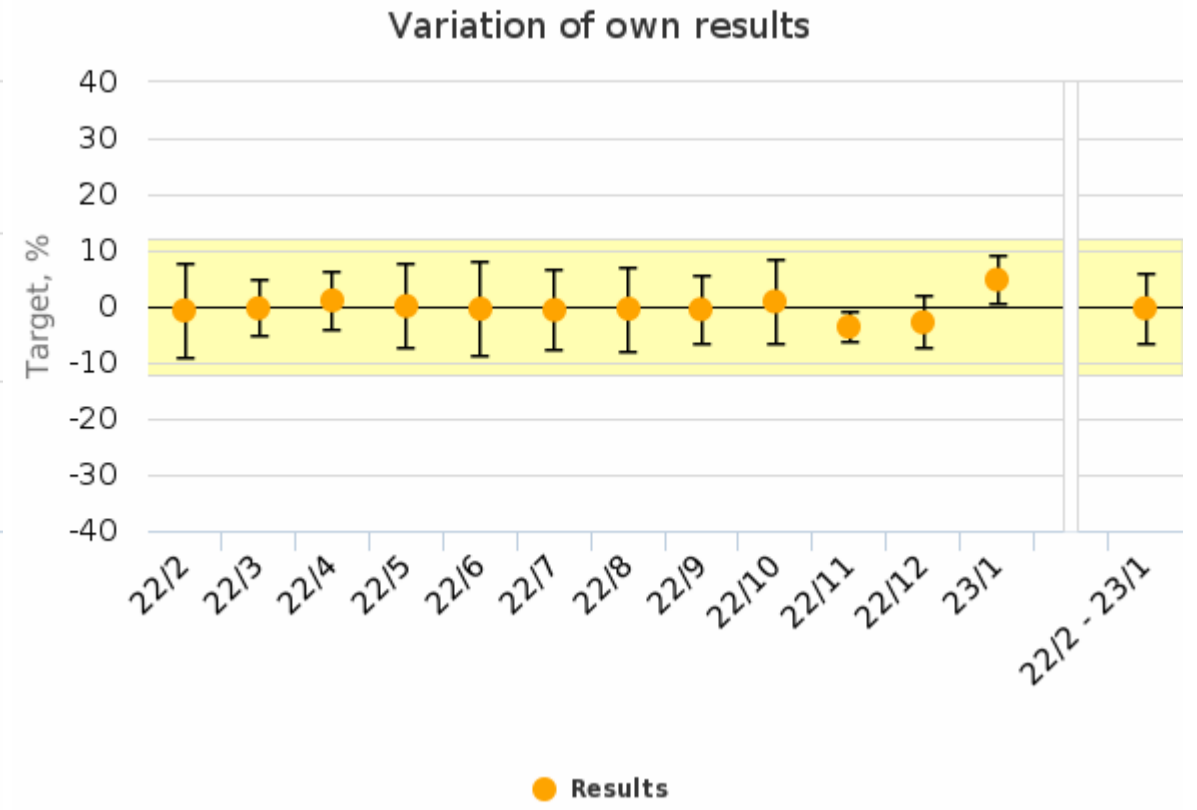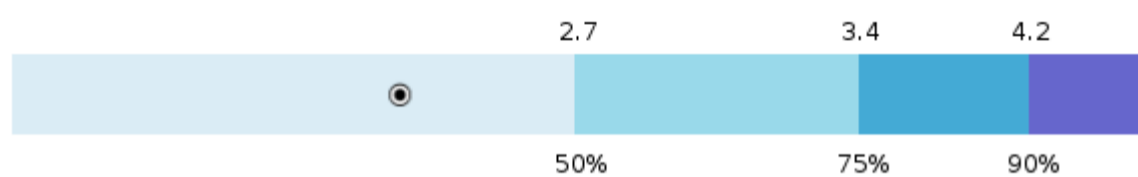
January - Internal CV% (compared to all methodicses)

January - Diff% (bias) (compared to all methodicses)

10 / 10 of your results this month are within the target area of your method group.

Report info

Participants

49 participants from 5 countries.

Report info

Your own result should be compared to others using the same method.
The laboratory's own result (X_o) is calculated from all results. Assigned values (x_{pt}, target values) are means of the results where results deviating more than +/- 3*standard deviation from the median are removed. The standard uncertainty (u) of the assigned value is reported as standard error of the mean (SEM).
In case the client's result is the only one in the method group, no assigned value will be calculated, no target area shown, and no statistics calculated. In case there are only a few

results in the client's own method group, the result can be compared to all method mean or to a group that is similar to the own method.
Results reported with < or > -signs cannot be included in the statistics.

For information on report interpretation and performance evaluation, please see the " EQAS Interpretation guidelines" LabScala User instructions (top right corner ?Help link).

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DayTrol | ALT, U/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
IFCC comparable methods (ALT)	79	79	3	3.4	<1	71	83	1	32	486
IFCC methods without P-5-P (ALT)	74	77	8	10.4	4	65	80	-	3	38
All	**78**	**79**	**3**	**3.8**	**<1**	**69**	**83**	**1**	**35**	**524**
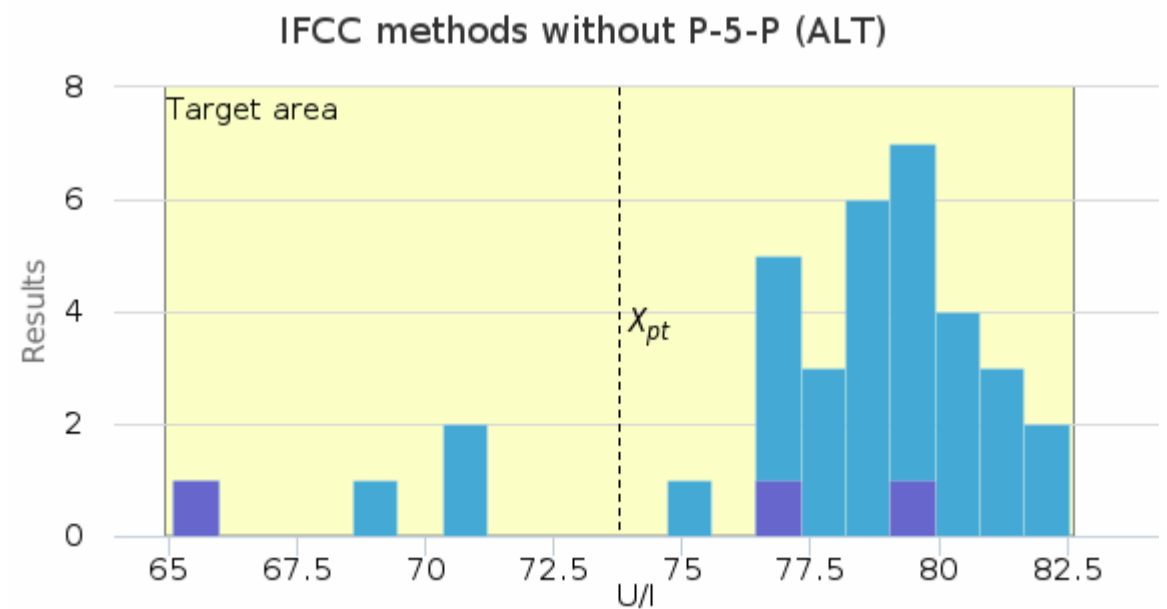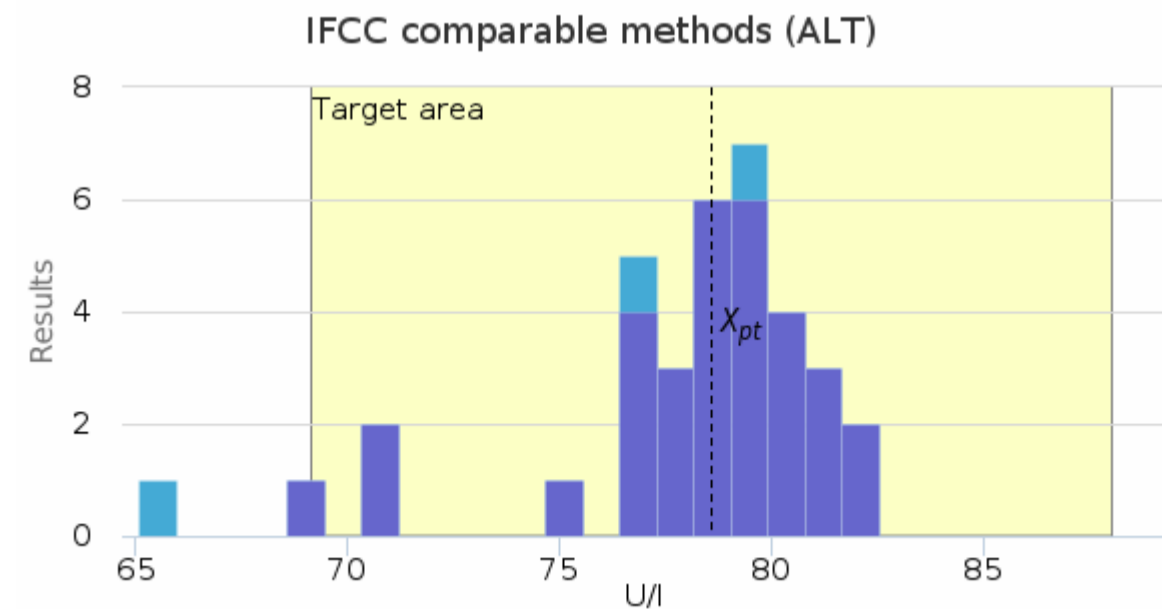
DayTrol | ALT, U/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
IFCC comparable methods (ALT)		79	3	3.4	32	486
	Abbott Alinity	74	7	9.8	2	41
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	79	3	3.4	27	401
IFCC methods without P-5-P (ALT)		74	8	10.4	3	38
	Human	-	-	-	1	10
	Roche cobas	-	-	-	1	20
	Thermo Scientific	-	-	-	1	8

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
IFCC comparable methods (ALT)		79	3	3.4	32	486
	Alinity c	74	7	9.8	2	41
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko	78	2	2.4	2	29
	Indiko Plus	78	3	4.0	9	135
	Konelab Prime 30	80	<1	0.8	2	34
	Konelab PRIME 60i	80	2	2.3	4	71
	Konelab 20	-	-	-	1	7
	Konelab 20i	78	4	5.0	6	77
	Konelab 20XT	-	-	-	1	4
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23
IFCC methods without P-5-P (ALT)		74	8	10.4	3	38
	Biosystems BTS-310	-	-	-	1	10
	cobas c111	-	-	-	1	20
	Konelab 20i	-	-	-	1	8

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
IFCC comparable methods (ALT)		79	3	3.4	32	486
	Alpha-ketoglutarate, Ala, P-5-P / NADH consumption; photometry	78	3	3.9	32	486
IFCC methods without P-5-P (ALT)		74	8	10.4	3	38

Alpha-ketoglutarate, Ala / NADH consumption; photometry	74	8	10.4	3	38

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DayTrol | Alb, g/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Bromcresol green	36.1	36.3	0.8	2.3	0.5	35.3	36.9	-	3	37
Bromcresol purple	-	-	-	-	-	36.1	36.1	-	1	12
All	**36.1**	**36.2**	**0.7**	**1.9**	**0.3**	**35.3**	**36.9**	**-**	**4**	**49**
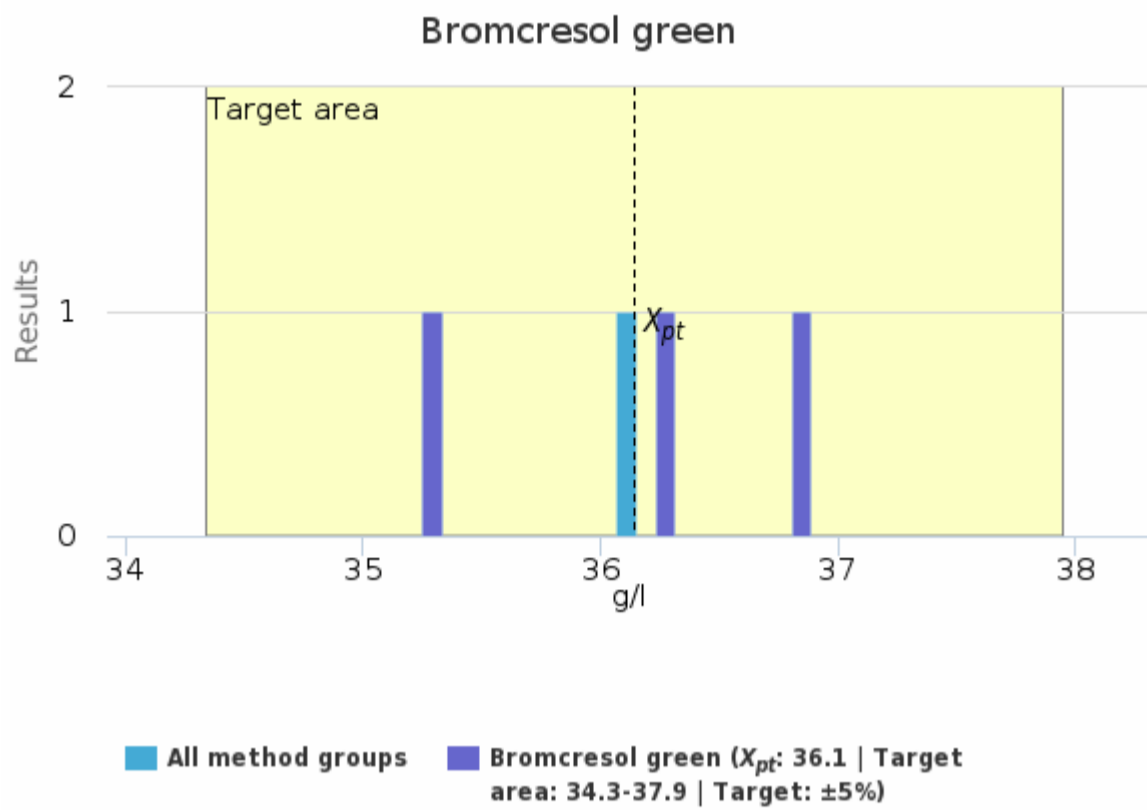
DayTrol | Alb, g/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Bromcresol green		36.1	0.8	2.29	3	37
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	35.8	0.7	2.06	2	29
Bromcresol purple		-	-	-	1	12
	Thermo Scientific	-	-	-	1	12

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Bromcresol green		36.1	0.8	2.29	3	37
	Atellica CH 930	-	-	-	1	8
	Konelab PRIME 60i	-	-	-	1	21
	Konelab 20i	-	-	-	1	8
Bromcresol purple		-	-	-	1	12
	Konelab PRIME 60i	-	-	-	1	12

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Bromcresol green		36.1	0.8	2.29	3	37
	Bromcresol green (BCG); photometry	36.1	0.8	2.29	3	37
Bromcresol purple		-	-	-	1	12
	Bromcresol purple (BCP); photometry	-	-	-	1	12

DayTrol | ALP, U/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
IFCC methods ALP (IFCC2011)	109	111	9	7.8	2	86	120	-	27	410
All	**109**	**111**	**9**	**7.8**	**2**	**86**	**120**	**-**	**27**	**410**
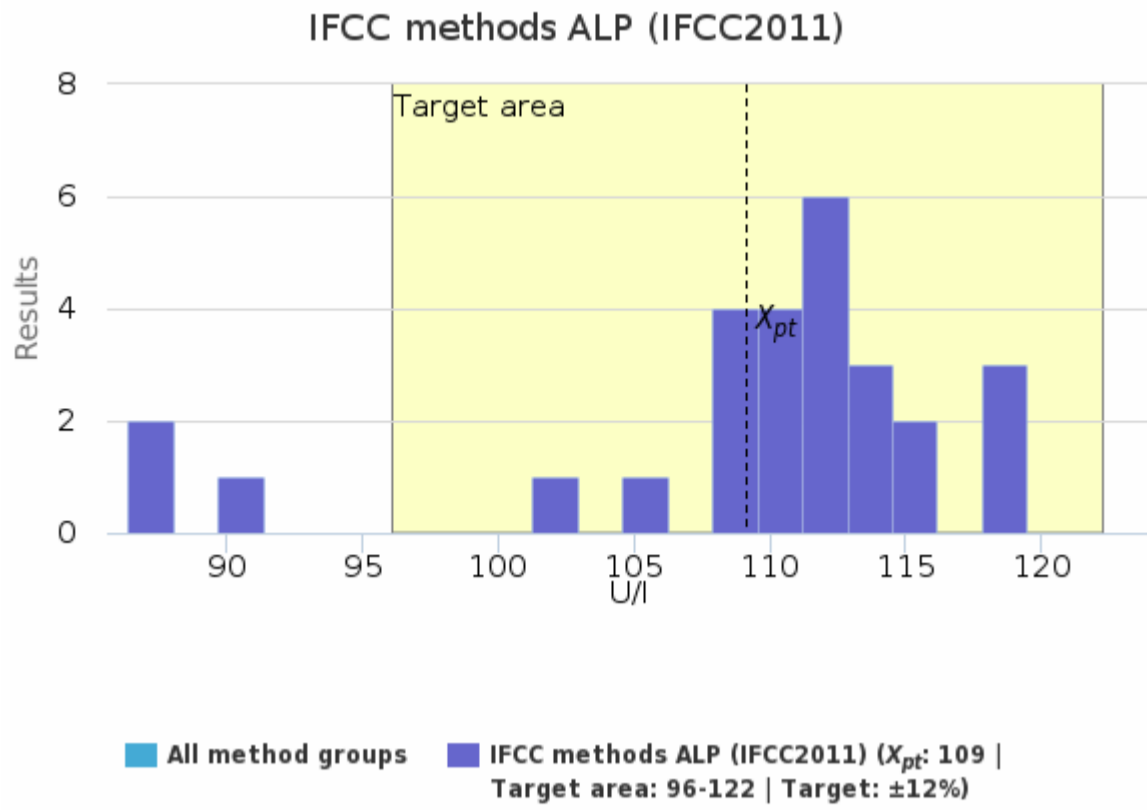
DayTrol | ALP, U/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
IFCC methods ALP (IFCC2011)		109	9	7.8	27	410
	BioSystems	-	-	-	1	8
	Roche cobas	115	5	4.2	2	47
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	112	<1	0.1	2	34
	Thermo Scientific (IFCC) Plus	109	8	7.0	21	313

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
IFCC methods ALP (IFCC2011)		109	9	7.8	27	410
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c111	-	-	-	1	19
	cobas c501	-	-	-	1	28
	Indiko	-	-	-	1	21
	Indiko Plus	110	8	7.4	9	130
	Konelab Prime 30	110	5	4.6	2	34
	Konelab PRIME 60i	112	1	1.1	4	57
	Konelab 20	-	-	-	1	7
	Konelab 20i	104	13	12.0	4	54
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
IFCC methods ALP (IFCC2011)		109	9	7.8	27	410
	pNPP, AMP buffer / pNP; photometry	109	9	7.8	27	410

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DayTrol | Amyl, U/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
IFCC methods (Amyl)	134	135	2	1.6	<1	130	137	-	13	225
Other methods, calculated to IFCC (Amyl)	125	123	7	5.2	4	121	133	-	3	49
All	**132**	**133**	**5**	**3.4**	**1**	**121**	**137**	**-**	**16**	**274**

IFCC methods (Amyl)

- All method groups
- IFCC methods (Amyl) (X_{pt}: 134 | Target area: 118-150 | Target: ±12%)

Other methods, calculated to IFCC (Amyl)

- All method groups
- Other methods, calculated to IFCC (Amyl) (X_{pt}: 125 | Target area: 110-140 | Target: ±12%)
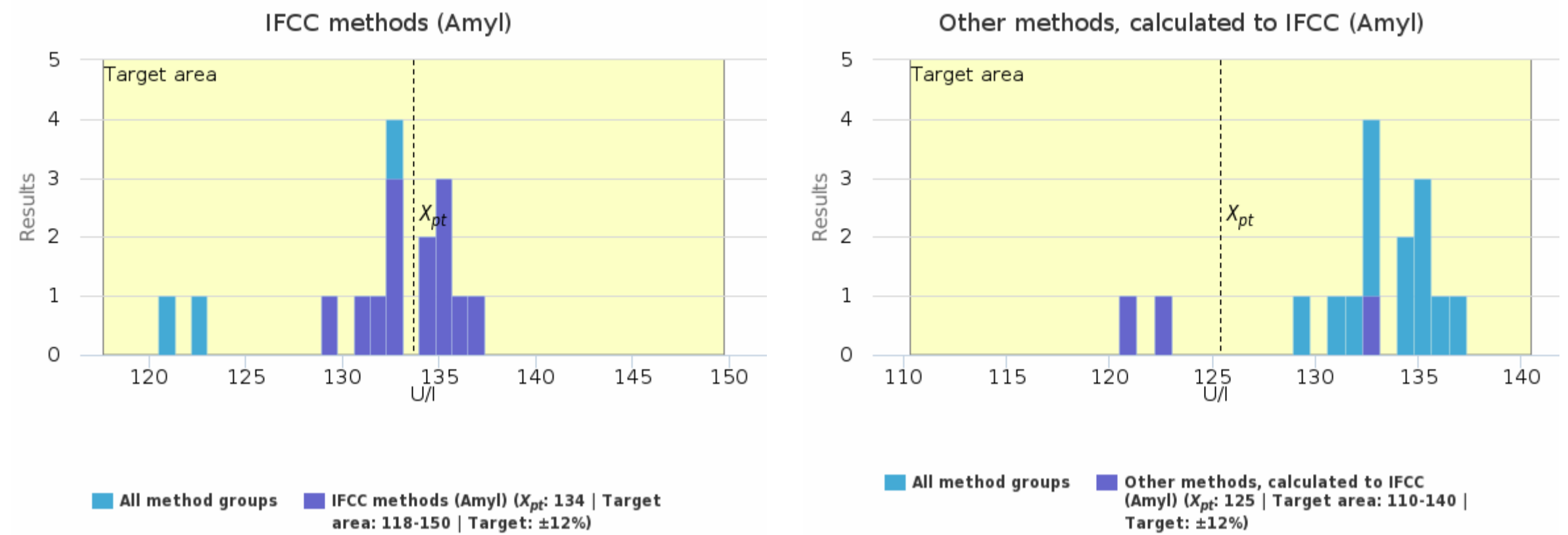
DayTrol | Amyl, U/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
IFCC methods (Amyl)		134	2	1.6	13	225
	Roche cobas	-	-	-	1	28
	Thermo Scientific	134	2	1.6	12	197
Other methods, calculated to IFCC (Amyl)		125	7	5.2	3	49
	Abbott Alinity	122	2	1.4	2	41
	BioSystems	-	-	-	1	8

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
IFCC methods (Amyl)		134	2	1.6	13	225
	cobas c501	-	-	-	1	28
	Indiko Plus	133	2	1.4	4	64
	Konelab Prime 30	-	-	-	1	21
	Konelab PRIME 60i	134	1	1.0	2	33
	Konelab 20	-	-	-	1	7
	Konelab 20i	132	4	3.0	2	28
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23
Other methods, calculated to IFCC (Amyl)		125	7	5.2	3	49
	Alinity c	122	2	1.4	2	41
	Biosystems BA-400	-	-	-	1	8

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
IFCC methods (Amyl)		134	2	1.6	13	225
	Etyl.-G7-pNP / pNP; photometry	134	2	1.6	13	225
Other methods, calculated to IFCC (Amyl)		125	7	5.2	3	49
	Cl-G3-pNP / Cl-pNP; photometry	125	7	5.2	3	49

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DayTrol | AST, U/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
IFCC comparable methods (ASAT)	78	78	4	4.8	<1	68	85	-	26	390
IFCC without P-5-P (AST)	-	-	-	-	-	76	76	-	1	10
All	**78**	**78**	**4**	**4.7**	**<1**	**68**	**85**	**-**	**27**	**400**

IFCC comparable methods (ASAT)

All method groups   IFCC comparable methods (ASAT) (X_{pt}: 78 | Target area: 69-88 | Target: ±12%)

IFCC without P-5-P (AST)

All method groups   IFCC without P-5-P (AST)
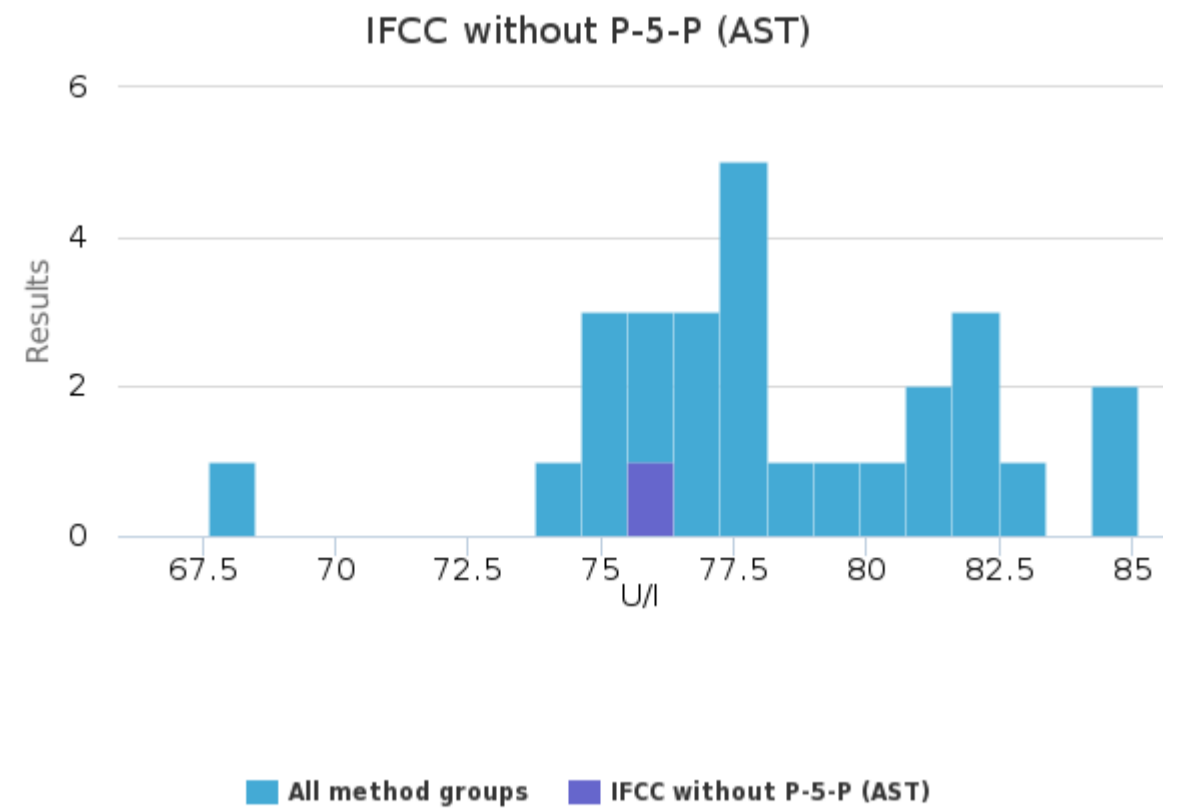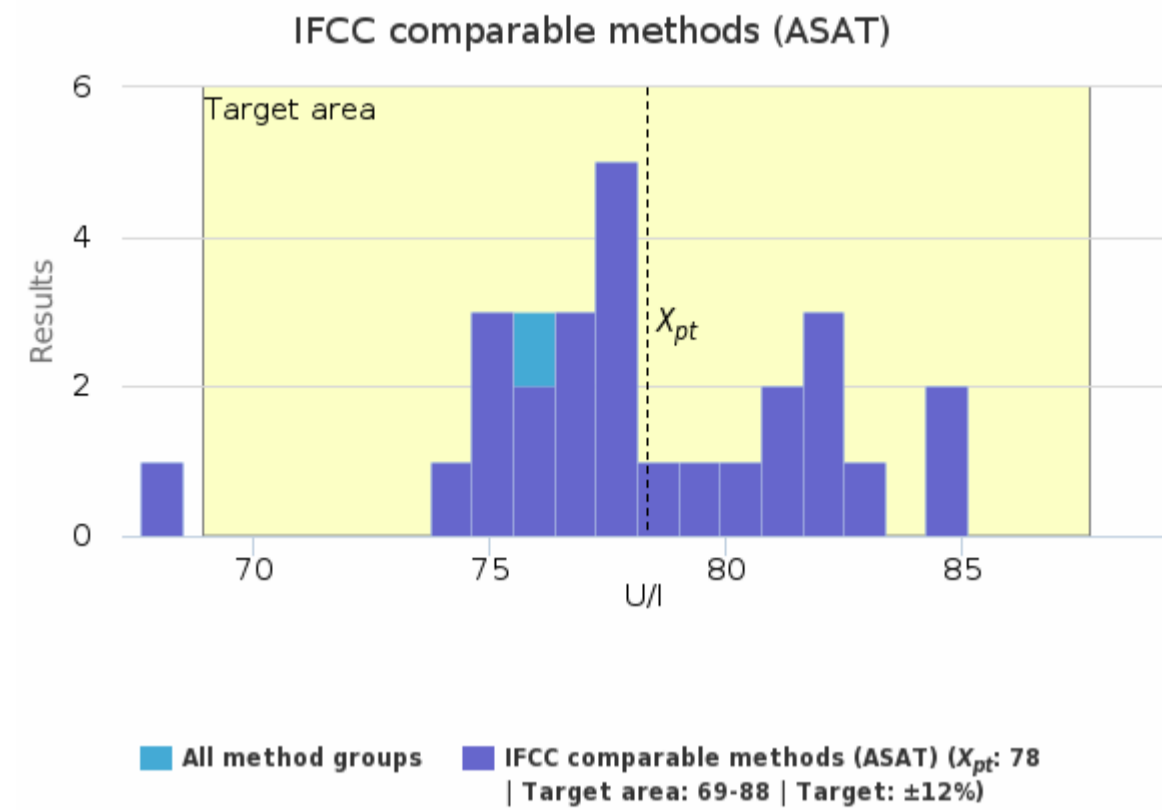
DayTrol | AST, U/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
IFCC comparable methods (ASAT)		78	4	4.8	26	390
	Abbott Alinity	82	2	1.8	2	42
	BioSystems	-	-	-	1	8
	Roche cobas	75	1	1.8	2	48
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	78	4	4.5	20	284
IFCC without P-5-P (AST)		-	-	-	1	10
	Human	-	-	-	1	10

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
IFCC comparable methods (ASAT)		78	4	4.8	26	390
	Alinity c	82	2	1.8	2	42
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c111	-	-	-	1	20
	cobas c501	-	-	-	1	28
	Indiko	-	-	-	1	21
	Indiko Plus	77	1	1.4	7	93
	Konelab Prime 30	79	5	6.0	2	34
	Konelab PRIME 60i	79	2	1.9	2	33
	Konelab 20	-	-	-	1	7
	Konelab 20i	79	6	7.9	6	75
	Konelab 20XTi	-	-	-	1	21
IFCC without P-5-P (AST)		-	-	-	1	10
	Biosystems BTS-310	-	-	-	1	10

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
IFCC comparable methods (ASAT)		78	4	4.8	26	390
	Alpha-ketoglutarate, Asp, P-5-P / NADH consumption; photometry	78	4	4.8	26	390
IFCC without P-5-P (AST)		-	-	-	1	10
	Alpha-ketoglutarate, Asp / NADH consumption; photometry	-	-	-	1	10

LABQUALITY

DayTrol | Bil, tot, µmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry (Bil)	35.5	35.0	2.1	5.8	0.5	32.9	40.7	-	16	244
All	**35.5**	**35.0**	**2.1**	**5.8**	**0.5**	**32.9**	**40.7**	**-**	**16**	**244**

Legend: ■ All method groups ■ Photometry (Bil) (X_{pt}: 35.5 | Target area: 31.2-39.7 | Target: ±12%)
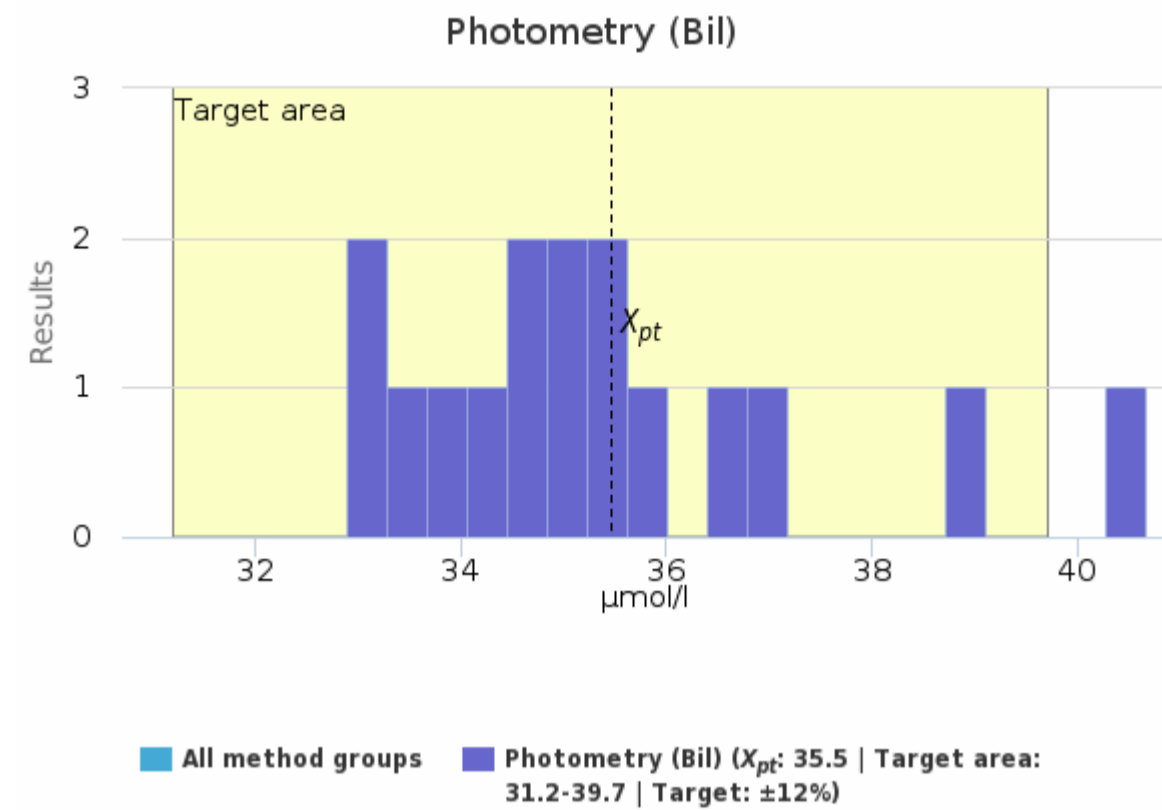
DayTrol | Bil, tot, µmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry (Bil)		35.5	2.1	5.81	16	244
	Abbott Alinity	39.8	1.3	3.26	2	42
	BioSystems	-	-	-	1	8
	Human	-	-	-	1	9
	Roche cobas	-	-	-	1	28
	Thermo Scientific	34.4	1.1	3.21	4	37
	Thermo Scientific NBD	34.8	1.3	3.74	7	120

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry (Bil)		35.5	2.1	5.81	16	244
	Alinity c	39.8	1.3	3.26	2	42
	Biosystems BA-400	-	-	-	1	8
	Biosystems BTS-310	-	-	-	1	9
	cobas c501	-	-	-	1	28
	Indiko Plus	34.9	1.4	3.92	5	85
	Konelab PRIME 60i	34.7	1.2	3.55	2	33
	Konelab 20	-	-	-	1	7
	Konelab 20i	-	-	-	1	8
	Konelab 20XT	-	-	-	1	3
	Konelab 20XTi	-	-	-	1	21

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry (Bil)		35.5	2.1	5.81	16	244
	Acid diazo, DCA; photometry	35.5	2.3	6.38	5	62
	Acid diazo, Detergent (Malloy-Evelyn and applications); photometry	35.3	2.2	6.31	9	145
	Alkaline diazo, Caffeine, Na-benzoate (Jendrassik-Grof applications); photometry	36.0	1.7	4.60	2	37

LABQUALITY

DayTrol | Pi, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry (Inorganic Phosphate)	1.42	1.40	0.05	3.4	0.02	1.38	1.51	-	6	88
All	**1.42**	**1.40**	**0.05**	**3.4**	**0.02**	**1.38**	**1.51**	**-**	**6**	**88**

Photometry (Inorganic Phosphate)

- All method groups
- Photometry (Inorganic Phosphate) (X_{pt}: 1.42 | Target area: 1.34-1.51 | Target: ±6%)
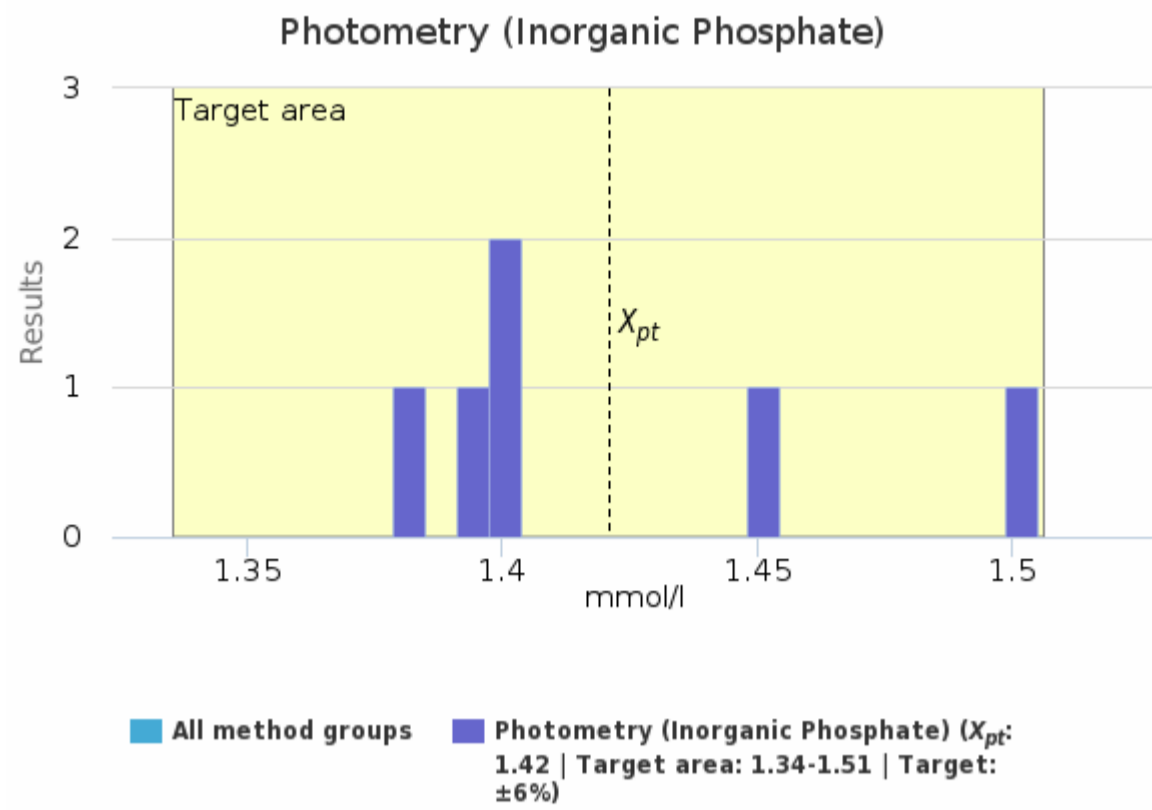
DayTrol | Pi, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry (Inorganic Phosphate)		1.42	0.05	3.372	6	88
	Abbott Alinity	1.39	0.01	0.969	2	43
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	-	-	-	1	1

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry (Inorganic Phosphate)		1.42	0.05	3.372	6	88
	Alinity c	1.39	0.01	0.969	2	43
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko Plus	-	-	-	1	1

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry (Inorganic Phosphate)		1.42	0.05	3.372	6	88
	Ammonium molybdate, phosphomolybdate complex, without reducing agent or deproteinization; photometry	1.42	0.05	3.372	6	88

DayTrol | Glucose, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry (Gluc)	5.44	5.41	0.10	1.8	0.02	5.30	5.68	1	34	514
All	**5.44**	**5.41**	**0.10**	**1.8**	**0.02**	**5.30**	**5.68**	**1**	**34**	**514**

Photometry (Gluc)

Legend: All method groups | Photometry (Gluc) (X_{pt}: 5.44 | Target area: 5.12-5.77 | Target: ±6%)
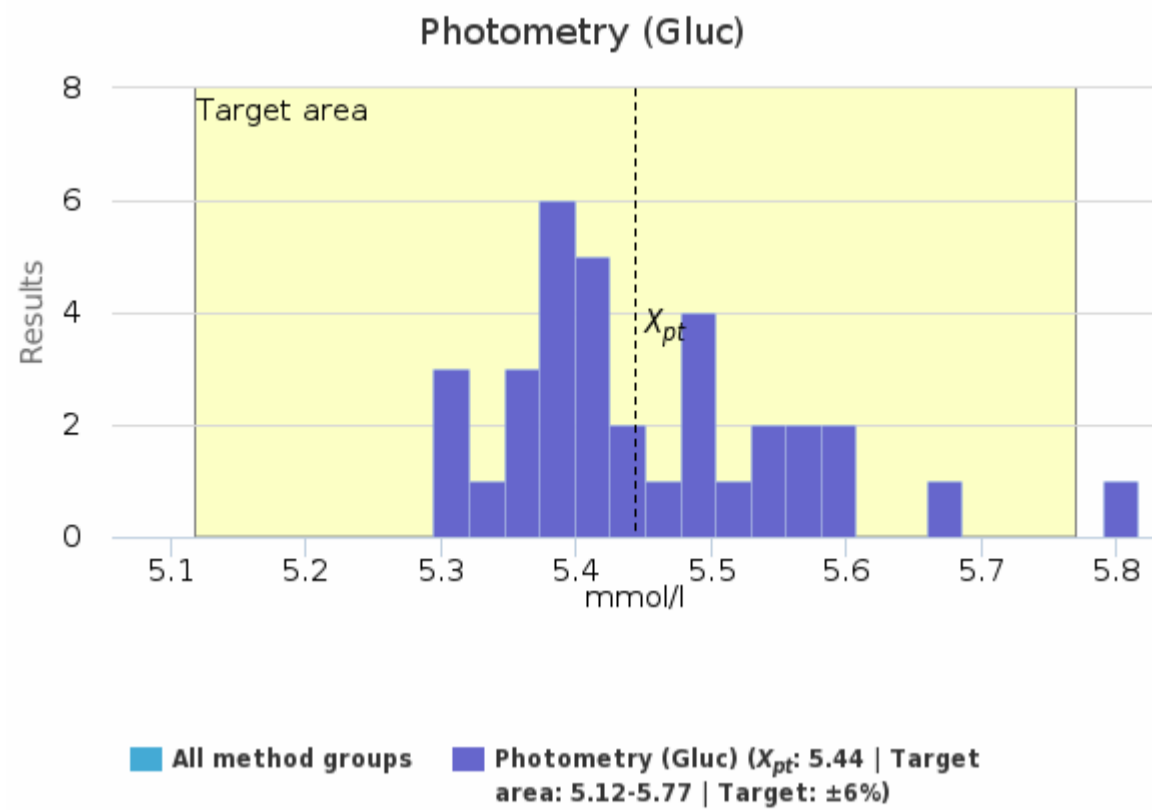
DayTrol | Glucose, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry (Gluc)		5.44	0.10	1.752	34	514
	Abbott Alinity	5.37	<0.01	0.011	2	42
	BioSystems	-	-	-	1	8
	Roche cobas	5.44	0.21	3.837	2	48
	Thermo Scientific	5.46	0.11	2.074	29	416

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry (Gluc)		5.44	0.10	1.752	34	514
	Alinity c	5.37	<0.01	0.011	2	42
	Biosystems BA-400	-	-	-	1	8
	cobas c111	-	-	-	1	20
	cobas c501	-	-	-	1	28
	Indiko	5.49	<0.01	0.161	2	29
	Indiko Plus	5.46	0.11	2.094	9	135
	Konelab Prime 30	5.41	0.02	0.302	2	34
	Konelab PRIME 60i	5.41	0.07	1.335	5	79
	Konelab 20	-	-	-	1	7
	Konelab 20i	5.51	0.15	2.761	7	85
	Konelab 20XT	-	-	-	1	3
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry (Gluc)		5.44	0.10	1.752	34	514
	Glucose dehydrogenase, mutarotase / NADH; photometry	5.34	0.06	1.087	2	40
	Glucose oxidase, H2O2 / chromogen; photometry	5.59	0.21	3.816	3	34
	Hexokinase, glucose-6-P-dehydrogenase / NADH; photometry	5.45	0.09	1.737	29	440

LABQUALITY

DayTrol | GT, U/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
IFCC methods (GGT)	49	49	2	3.4	<1	45	52	-	32	488
All	**49**	**49**	**2**	**3.4**	**<1**	**45**	**52**	**-**	**32**	**488**

Legend: All method groups · IFCC methods (GGT) (X_{pt}: 49 | Target area: 43-55 | Target: ±12%)
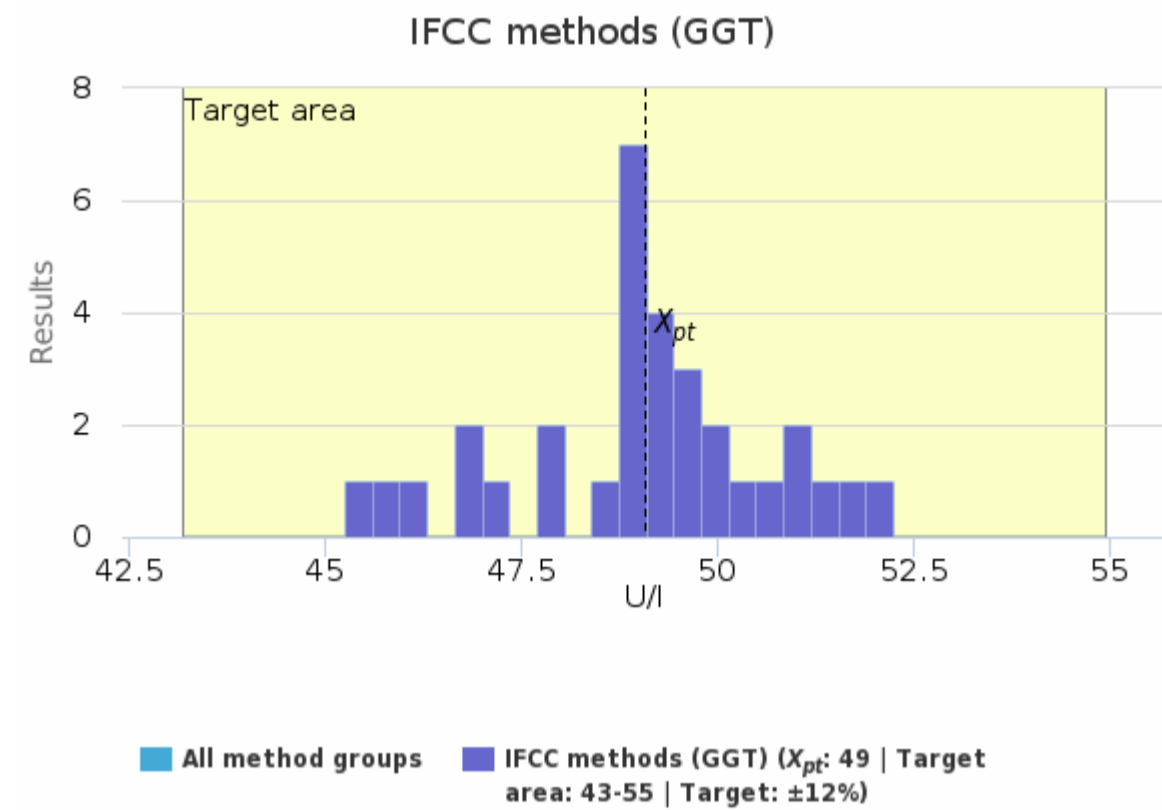
DayTrol | GT, U/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
IFCC methods (GGT)		49	2	3.4	32	488
	Abbott Alinity	47	2	3.3	2	42
	BioSystems	-	-	-	1	8
	Human	-	-	-	1	10
	Roche cobas	49	2	4.1	2	47
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	49	2	3.1	25	373

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
IFCC methods (GGT)		49	2	3.4	32	488
	Alinity c	47	2	3.3	2	42
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	Biosystems BTS-310	-	-	-	1	10
	cobas c111	-	-	-	1	19
	cobas c501	-	-	-	1	28
	Indiko	50	1	2.3	2	16
	Indiko Plus	49	<1	1.9	9	134
	Konelab Prime 30	50	<1	0.9	2	34
	Konelab PRIME 60i	48	1	2.7	4	71
	Konelab 20	-	-	-	1	7
	Konelab 20i	48	1	3.1	5	67
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
IFCC methods (GGT)		49	2	3.4	32	488
	GLUCANA, glycylglycine / p-nitroanilin; photometry	49	2	3.6	26	402
	GLUCANA, glycylglycine,Tris / p-nitroanilin; photometry	50	1	2.4	6	86

DayTrol | K, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
ISE direct	4.25	4.26	0.05	1.3	0.01	4.11	4.33	-	27	428
ISE indirect	4.33	4.33	0.08	1.8	0.04	4.25	4.44	-	4	78
All	**4.26**	**4.26**	**0.06**	**1.5**	**0.01**	**4.11**	**4.44**	**-**	**31**	**506**
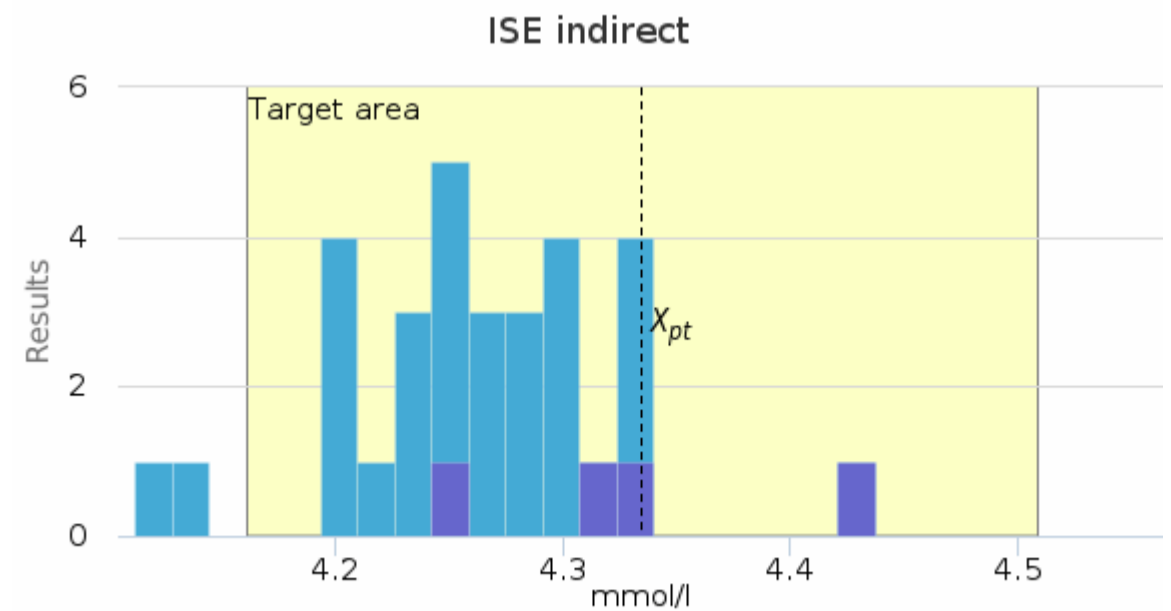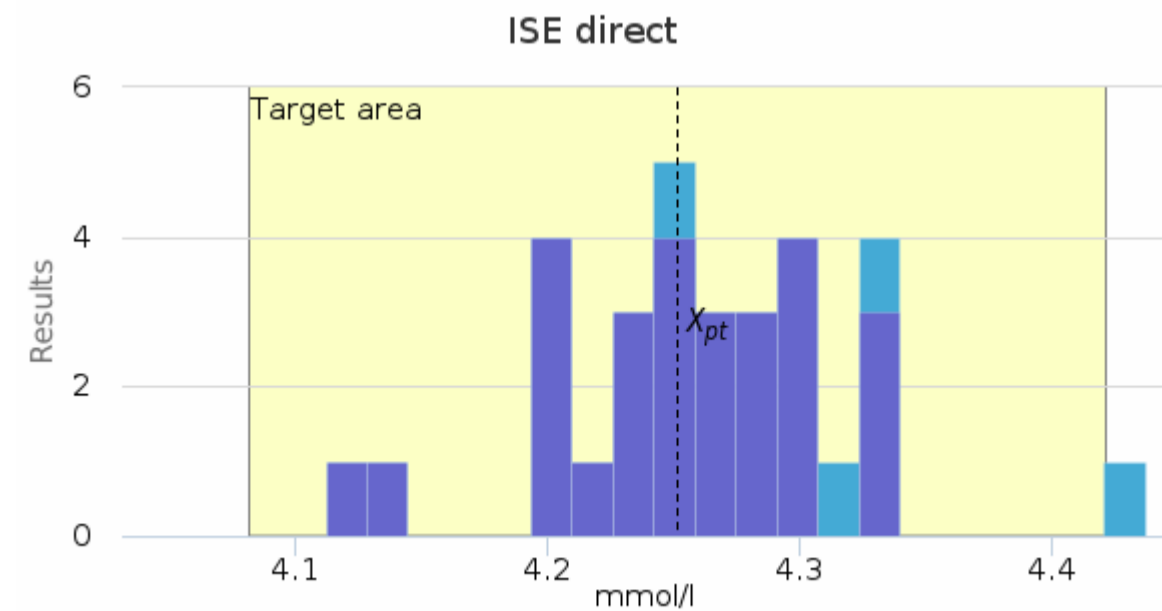
ISE direct

All method groups — ISE direct (X_{pt}: 4.25 | Target area: 4.08-4.42 | Target: ±4%)

ISE indirect

All method groups — ISE indirect (X_{pt}: 4.33 | Target area: 4.16-4.51 | Target: ±4%)

DayTrol | K, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
ISE direct		4.25	0.05	1.260	27	428
	Easylite	-	-	-	1	8
	Thermo Scientific	4.26	0.05	1.184	24	398
	Thermo Scientific electrolyte analysers	4.27	0.04	0.915	2	22
ISE indirect		4.33	0.08	1.798	4	78
	Abbott Alinity	4.28	0.04	1.046	2	42
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
ISE direct		4.25	0.05	1.260	27	428
	EasyLyte	-	-	-	1	8
	Indiko	-	-	-	1	21
	Indiko Plus	4.28	0.03	0.816	10	157
	Konelab Prime 30	4.26	0.07	1.613	2	34
	Konelab PRIME 60i	4.26	0.06	1.312	4	71
	Konelab 20	-	-	-	1	7
	Konelab 20i	4.21	0.05	1.229	6	87
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	22
ISE indirect		4.33	0.08	1.798	4	78
	Alinity c	4.28	0.04	1.046	2	42
	Atellica CH 930	-	-	-	1	8
	cobas c501	-	-	-	1	28

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
ISE direct		4.25	0.05	1.260	27	428
	Direct potentiometry	4.25	0.05	1.260	27	428
ISE indirect		4.33	0.08	1.798	4	78
	Indirect potentiometry	4.33	0.08	1.798	4	78

DayTrol | Ca, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry (Ca)	2.47	2.43	0.08	3.4	0.03	2.41	2.61	-	8	120
All	**2.47**	**2.43**	**0.08**	**3.4**	**0.03**	**2.41**	**2.61**	**-**	**8**	**120**

Photometry (Ca)

- All method groups
- Photometry (Ca) (X_{pt}: 2.47 | Target area: 2.40-2.55 | Target: ±3%)
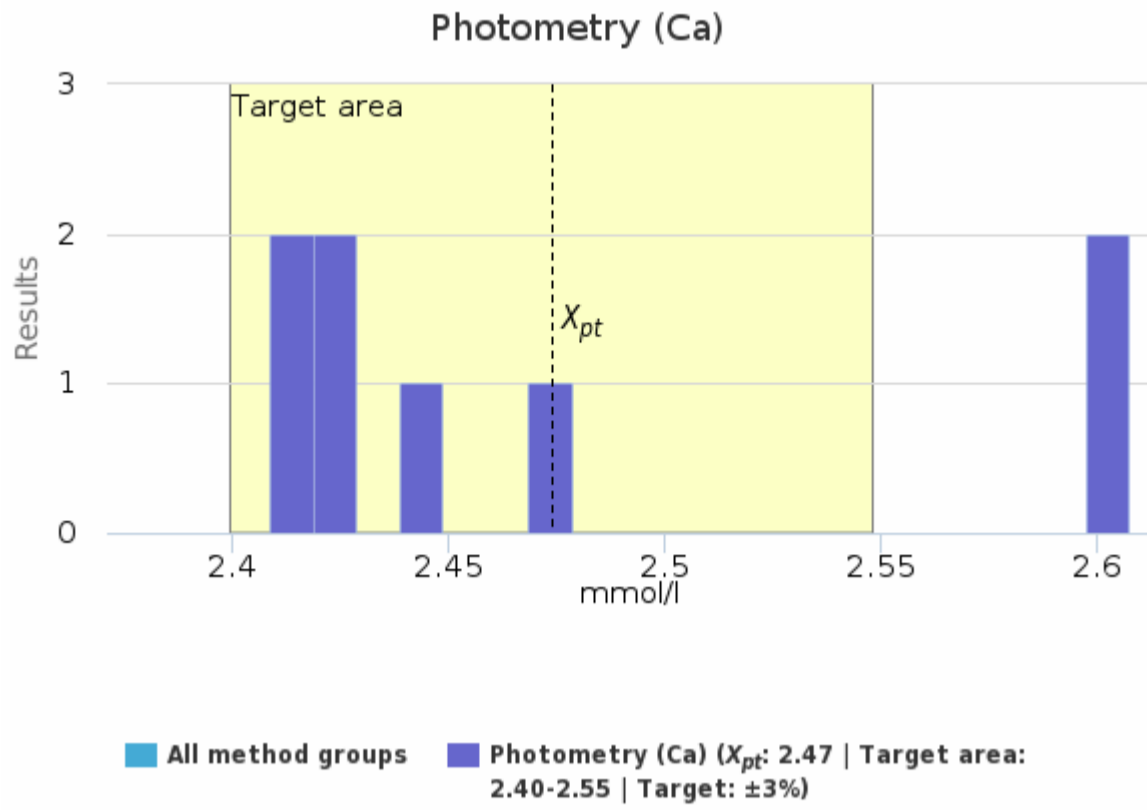
DayTrol | Ca, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry (Ca)		2.47	0.08	3.368	8	120
	Abbott Alinity	2.42	0.02	0.890	2	42
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	2.44	0.03	1.106	3	34

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry (Ca)		2.47	0.08	3.368	8	120
	Alinity c	2.42	0.02	0.890	2	42
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko Plus	-	-	-	1	1
	Konelab PRIME 60i	2.42	<0.01	0.156	2	33

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry (Ca)		2.47	0.08	3.368	8	120
	Arsenazo III; photometry	2.48	0.09	3.476	7	92
	5-nitro-5'-methyl-BAPTA (NM-BAPTA)	-	-	-	1	28

DayTrol | Cl, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
ISE direct	111	111	1	1.2	<1	110	112	-	2	9
ISE indirect	113	113	3	2.4	2	110	115	-	3	47
All	**112**	**112**	**2**	**2.0**	**<1**	**110**	**115**	**-**	**5**	**56**

ISE direct

Target area

ISE indirect
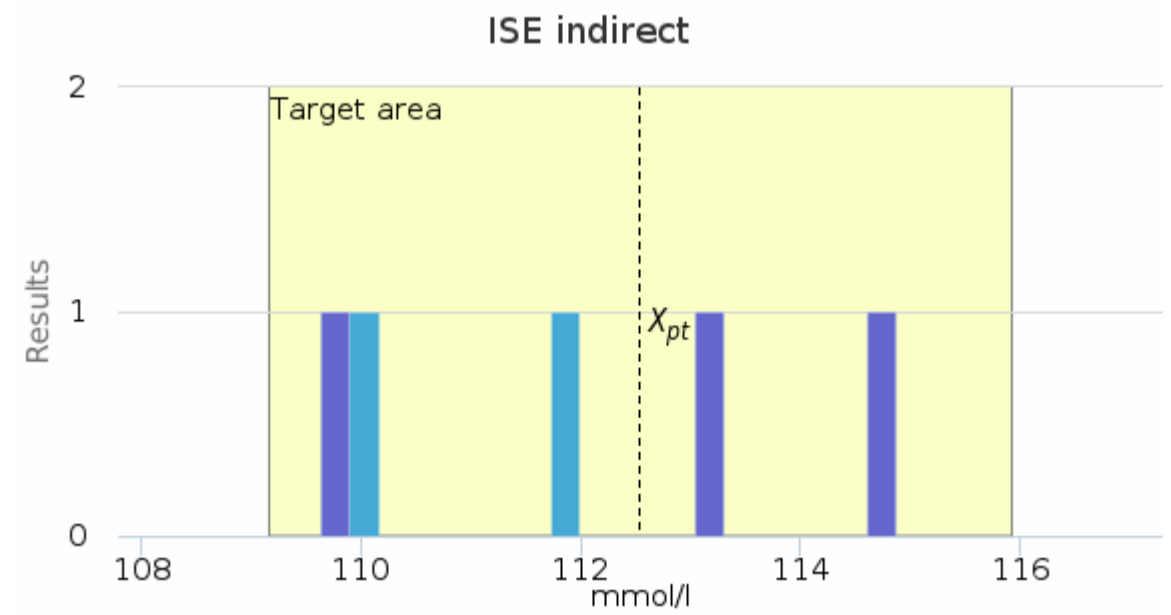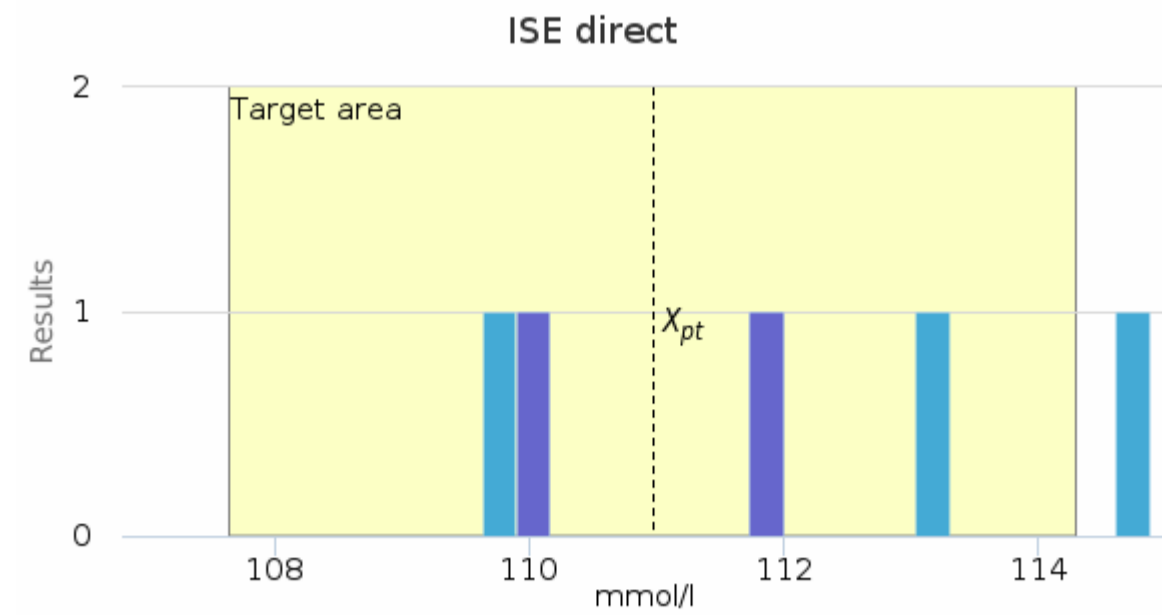
Target area

- All method groups
- ISE direct (X_{pt}: 111 | Target area: 108-114 | Target: ±3%)

- All method groups
- ISE indirect (X_{pt}: 113 | Target area: 109-116 | Target: ±3%)

DayTrol | Cl, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
ISE direct		111	1	1.2	2	9
	Easylite	-	-	-	1	8
	Thermo Scientific electrolyte analysers	-	-	-	1	1
ISE indirect		113	3	2.4	3	47
	Abbott Alinity	-	-	-	1	11
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
ISE direct		111	1	1.2	2	9
	EasyLyte	-	-	-	1	8
	Indiko Plus	-	-	-	1	1
ISE indirect		113	3	2.4	3	47
	Alinity c	-	-	-	1	11
	Atellica CH 930	-	-	-	1	8
	cobas c501	-	-	-	1	28

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
ISE direct		111	1	1.2	2	9
	Direct potentiometry	111	1	1.2	2	9
ISE indirect		113	3	2.4	3	47
	Indirect potentiometry	113	3	2.4	3	47

DayTrol | Chol, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry, enzymatic (Chol)	4.89	4.91	0.11	2.2	0.02	4.69	5.20	-	34	507
All	**4.89**	**4.91**	**0.11**	**2.2**	**0.02**	**4.69**	**5.20**	**-**	**34**	**507**

Photometry, enzymatic (Chol)

Target area

Legend: ■ All method groups ■ Photometry, enzymatic (Chol) (X_{pt}: 4.89 | Target area: 4.65-5.14 | Target: ±5%)
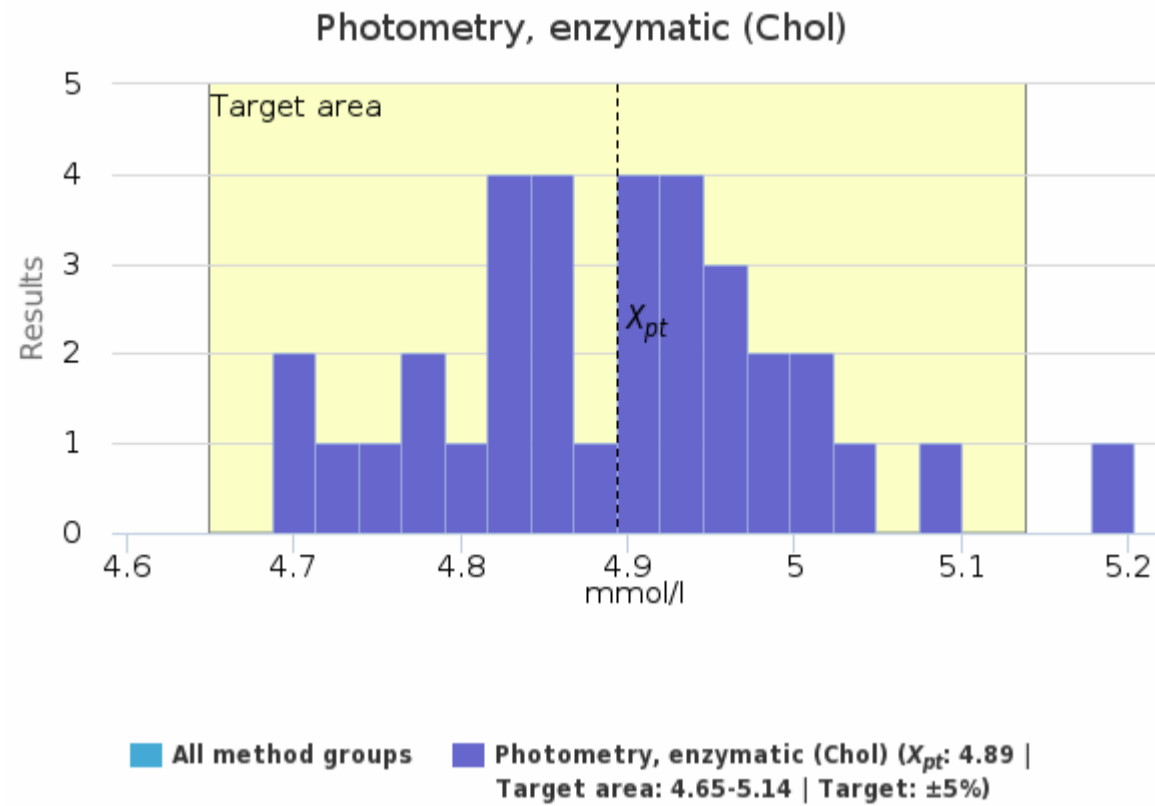
DayTrol | Chol, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Chol)		4.89	0.11	2.231	34	507
	Abbott Alinity	4.82	0.03	0.538	2	44
	BioSystems	-	-	-	1	8
	Dialab reagents	-	-	-	1	8
	Roche cobas	4.89	0.04	0.739	2	48
	Thermo Scientific	4.88	0.09	1.939	28	399

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Chol)		4.89	0.11	2.231	34	507
	Alinity c	4.82	0.03	0.538	2	44
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c111	-	-	-	1	20
	cobas c501	-	-	-	1	28
	Indiko	4.83	0.12	2.440	3	37
	Indiko Plus	4.86	0.11	2.266	9	134
	Konelab Prime 30	4.93	<0.01	0.032	2	34
	Konelab PRIME 60i	4.86	0.04	0.916	3	54
	Konelab 20	-	-	-	1	7
	Konelab 20i	4.92	0.08	1.556	7	85
	Konelab 20XT	-	-	-	1	4
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Chol)		4.89	0.11	2.231	34	507
	Cholesterol esterase, cholesterol oxidase, H2O2, peroxidase / chromogen; photometry	4.89	0.11	2.231	34	507

DayTrol, human serum, January, 1-2023

DayTrol | Chol-HDL, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Chol HDL direct, Biosystems	-	-	-	-	-	1.86	1.86	-	1	8
Chol-HDL direct, Abbott	1.75	1.75	<0.01	0.6	<0.01	1.74	1.75	-	2	43
Chol-HDL direct, Roche	-	-	-	-	-	1.60	1.60	-	1	20
Chol-HDL direct, Thermo Scientific	1.59	1.60	0.04	2.4	<0.01	1.52	1.69	-	21	319
All	**1.61**	**1.60**	**0.06**	**3.5**	**0.01**	**1.52**	**1.75**	**1**	**25**	**390**

Chol HDL direct, Biosystems

■ All method groups ■ Chol HDL direct, Biosystems

Chol-HDL direct, Abbott

■ All method groups ■ Chol-HDL direct, Abbott (X_{pt}: 1.75 | Target area: 1.57-1.92 | Target: ±10%)

Chol-HDL direct, Roche

■ All method groups ■ Chol-HDL direct, Roche

Chol-HDL direct, Thermo Scientific

■ All method groups ■ Chol-HDL direct, Thermo Scientific (X_{pt}: 1.59 | Target area: 1.43-1.75 | Target: ±10%)
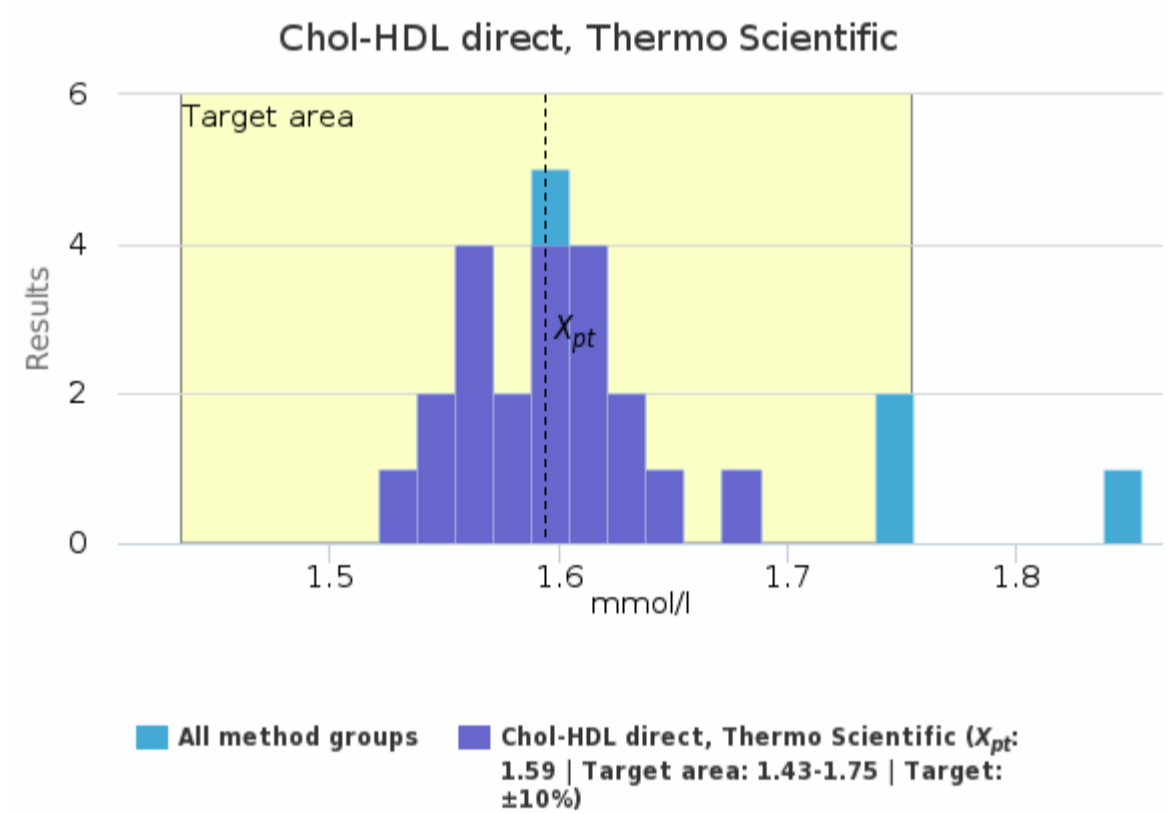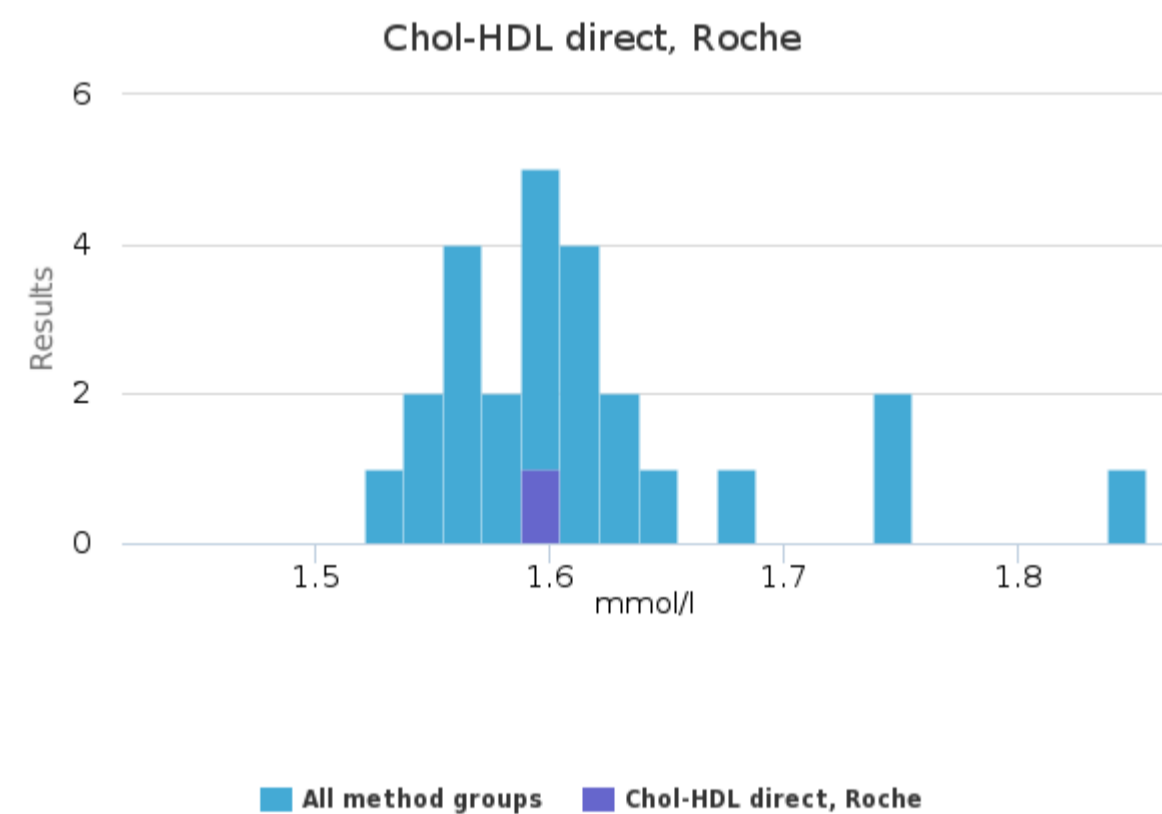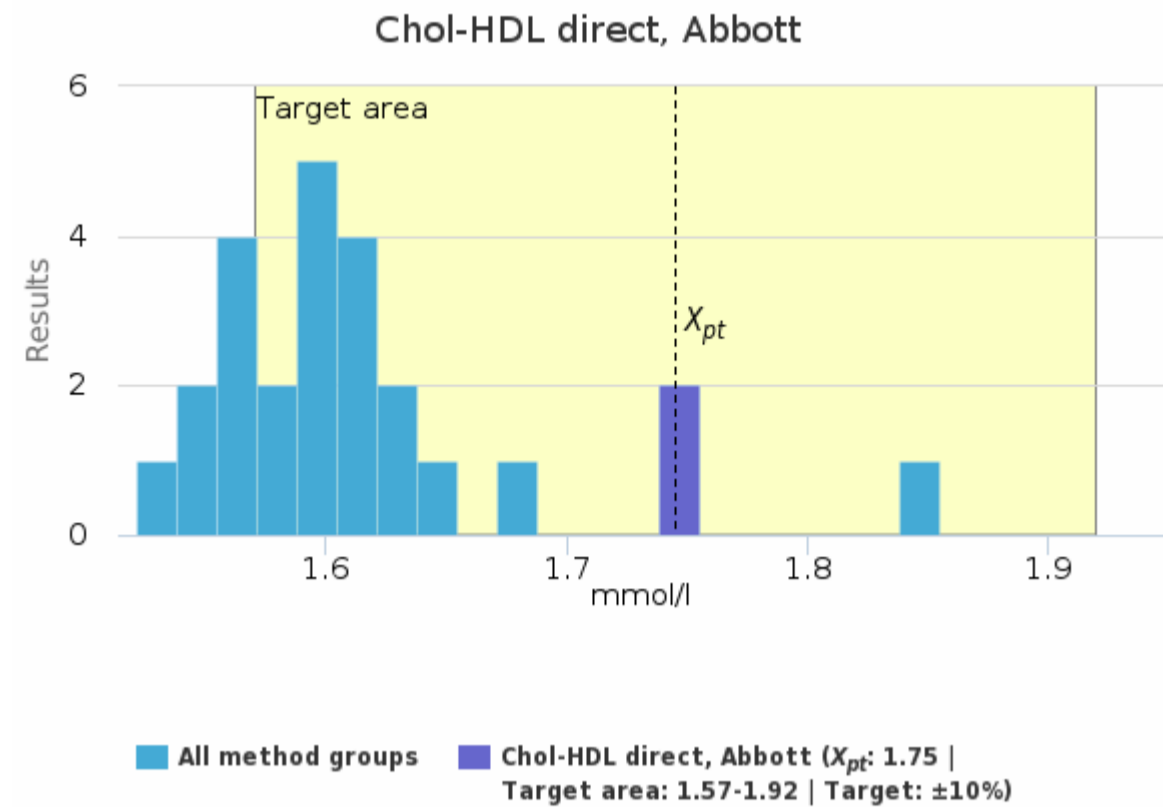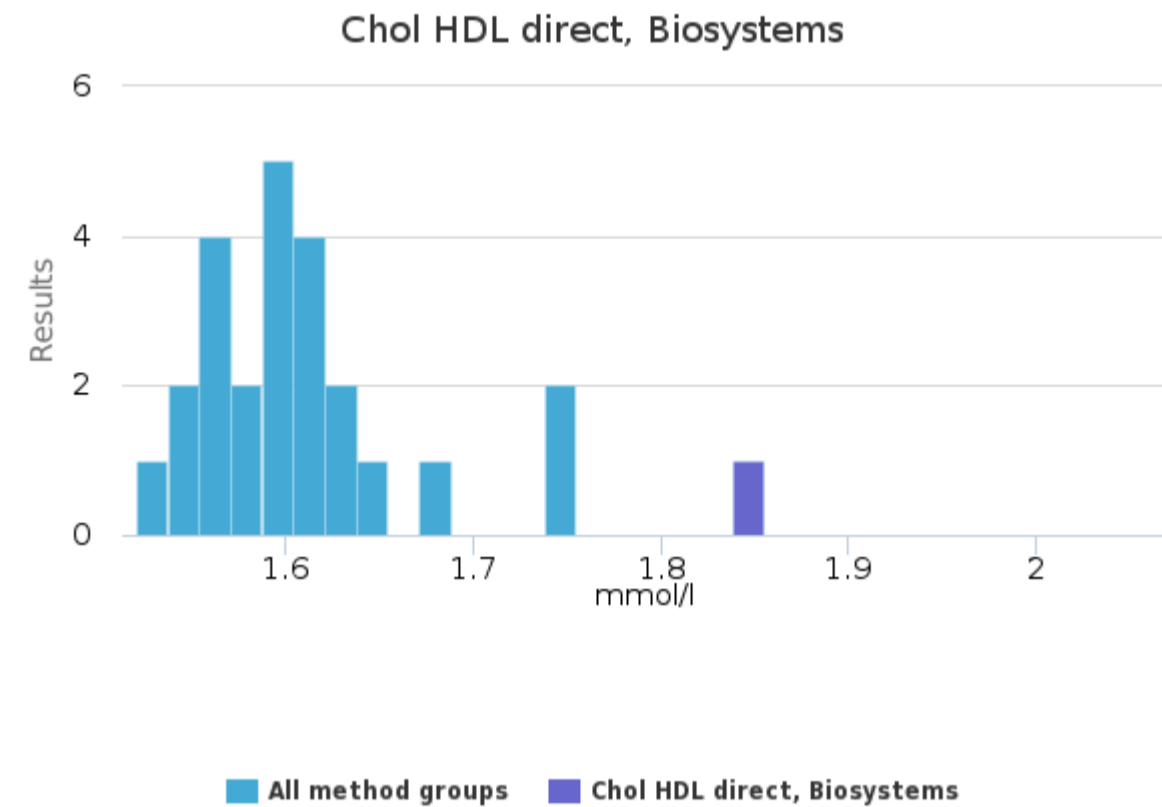
DayTrol | Chol-HDL, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Chol HDL direct, Biosystems		-	-	-	1	8
	BioSystems	-	-	-	1	8
Chol-HDL direct, Abbott		1.75	<0.01	0.566	2	43
	Abbott Alinity	1.75	<0.01	0.566	2	43
Chol-HDL direct, Roche		-	-	-	1	20
	Roche cobas	-	-	-	1	20
Chol-HDL direct, Thermo Scientific		1.59	0.04	2.424	21	319
	Thermo Scientific	1.62	0.04	2.430	7	98
	Thermo Scientific HDL Cholesterol Plus	1.58	0.03	1.985	14	221

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Chol HDL direct, Biosystems		-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
Chol-HDL direct, Abbott		1.75	<0.01	0.566	2	43
	Alinity c	1.75	<0.01	0.566	2	43
Chol-HDL direct, Roche		-	-	-	1	20

		X_{pt}	sd	CV%	n devices	n results
	cobas c111	-	-	-	1	20
Chol-HDL direct, Thermo Scientific		1.59	0.04	2.424	21	319
	Indiko	1.63	0.05	3.140	3	37
	Indiko Plus	1.59	0.04	2.502	7	108
	Konelab Prime 30	1.61	<0.01	0.537	2	34
	Konelab PRIME 60i	1.55	<0.01	0.081	2	33
	Konelab 20	-	-	-	1	7
	Konelab 20i	1.58	0.03	1.851	4	56
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Chol HDL direct, Biosystems		-	-	-	1	8
	Direct measurement of HDL-cholesterol after decomposition of cholesterol from other lipoproteines	-	-	-	1	8
Chol-HDL direct, Abbott		1.75	<0.01	0.566	2	43
	Direct measurement of HDL-cholesterol after decomposition of cholesterol from other lipoproteines	1.75	<0.01	0.566	2	43
Chol-HDL direct, Roche		-	-	-	1	20
	Direct measurement of HDL-cholesterol after decomposition of cholesterol from other lipoproteines	-	-	-	1	20
Chol-HDL direct, Thermo Scientific		1.59	0.04	2.424	21	319
	Direct measurement of HDL-cholesterol after decomposition of cholesterol from other lipoproteines	1.59	0.04	2.424	21	319

LABQUALITY

DayTrol | CK, U/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
IFCC methods (CK)	221	219	6	2.8	2	214	233	1	12	151
All	**221**	**219**	**6**	**2.8**	**2**	**214**	**233**	**1**	**12**	**151**

IFCC methods (CK)

All method groups   IFCC methods (CK) (X_{pt}: 221 | Target area: 195-248 | Target: ±12%)
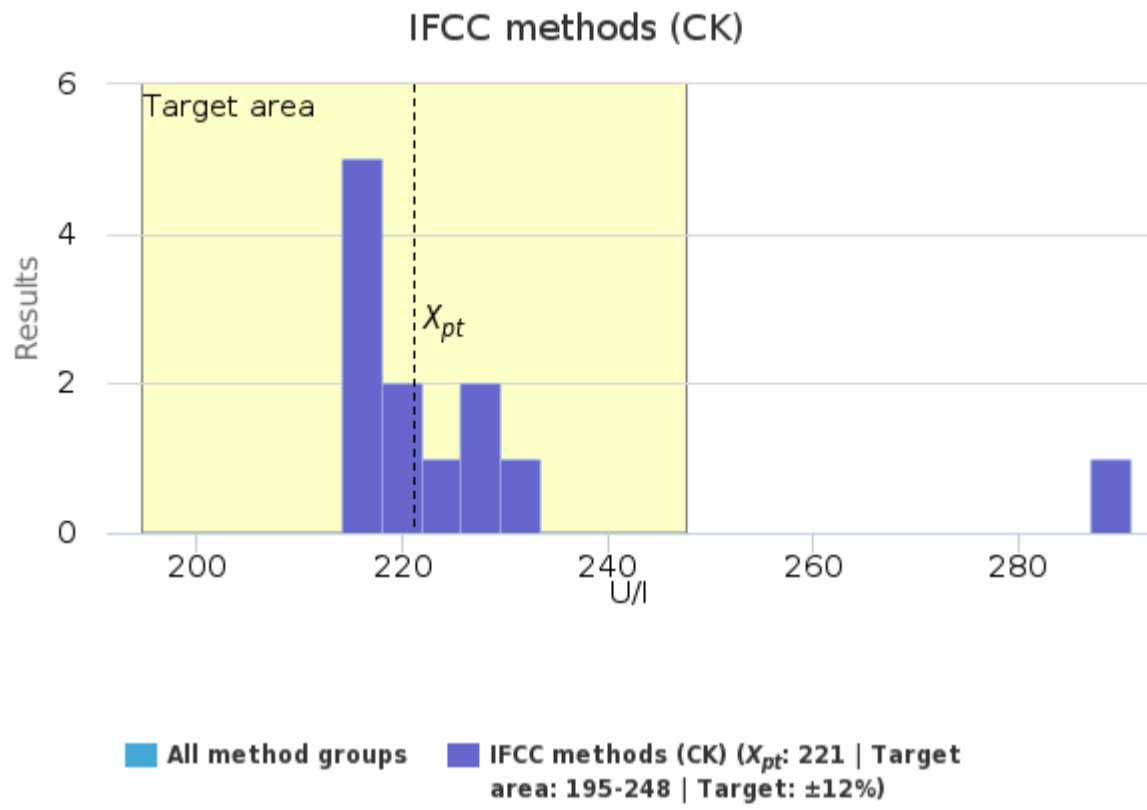
DayTrol | CK, U/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
IFCC methods (CK)		221	6	2.8	12	151
	Abbott Alinity	218	1	0.5	2	41
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	223	7	3.1	7	66

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
IFCC methods (CK)		221	6	2.8	12	151
	Alinity c	218	1	0.5	2	41
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko Plus	217	2	1.0	2	20
	Konelab PRIME 60i	227	<1	<0.1	2	20
	Konelab 20	-	-	-	1	7
	Konelab 20i	-	-	-	1	15
	Konelab 20XT	-	-	-	1	4

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
IFCC methods (CK)		221	6	2.8	12	151
	Creatine-P, ADP, NAC activator / NADPH; photometry	227	21	9.3	12	151

LABQUALITY

DayTrol | Crea, µmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry, enzymatic (Crea)	167.2	167.0	3.6	2.2	0.6	161.0	174.8	-	33	521
Photometry, Jaffe	158.0	158.0	1.0	0.6	0.6	156.9	158.9	-	3	37
All	**166.4**	**166.6**	**4.3**	**2.6**	**0.7**	**156.9**	**174.8**	**-**	**36**	**558**
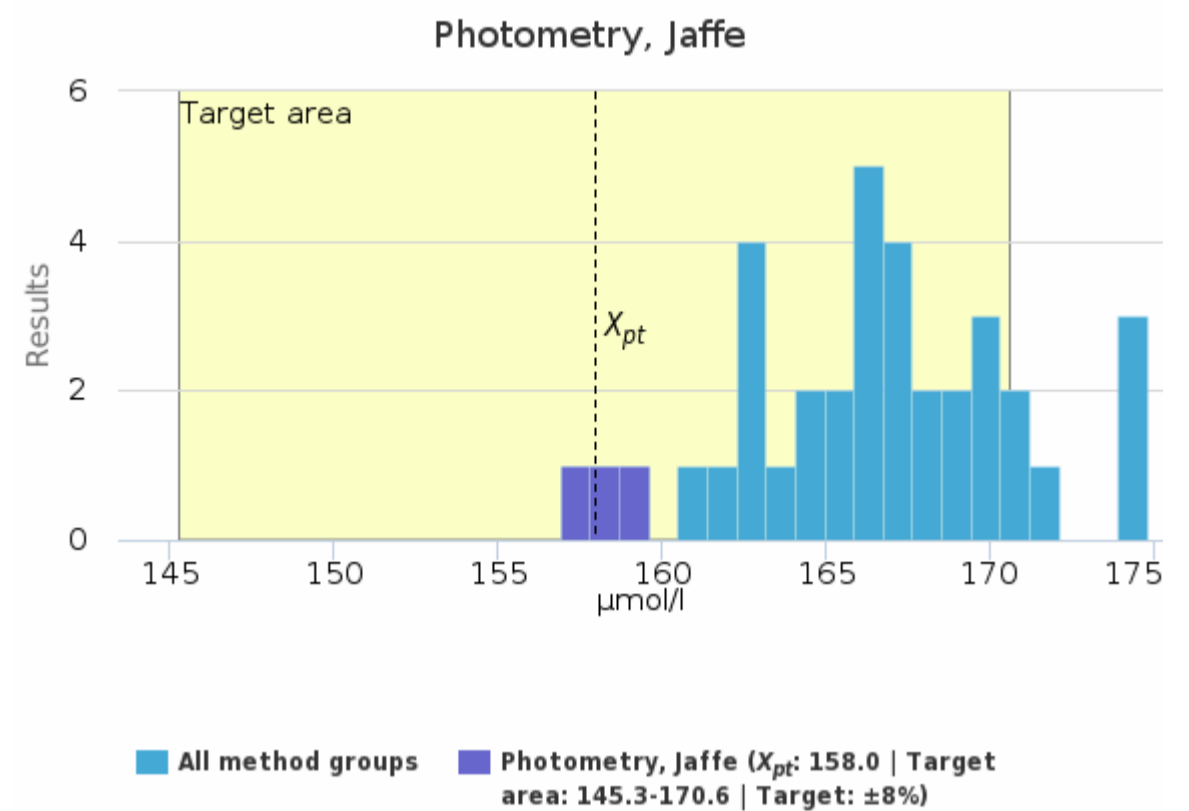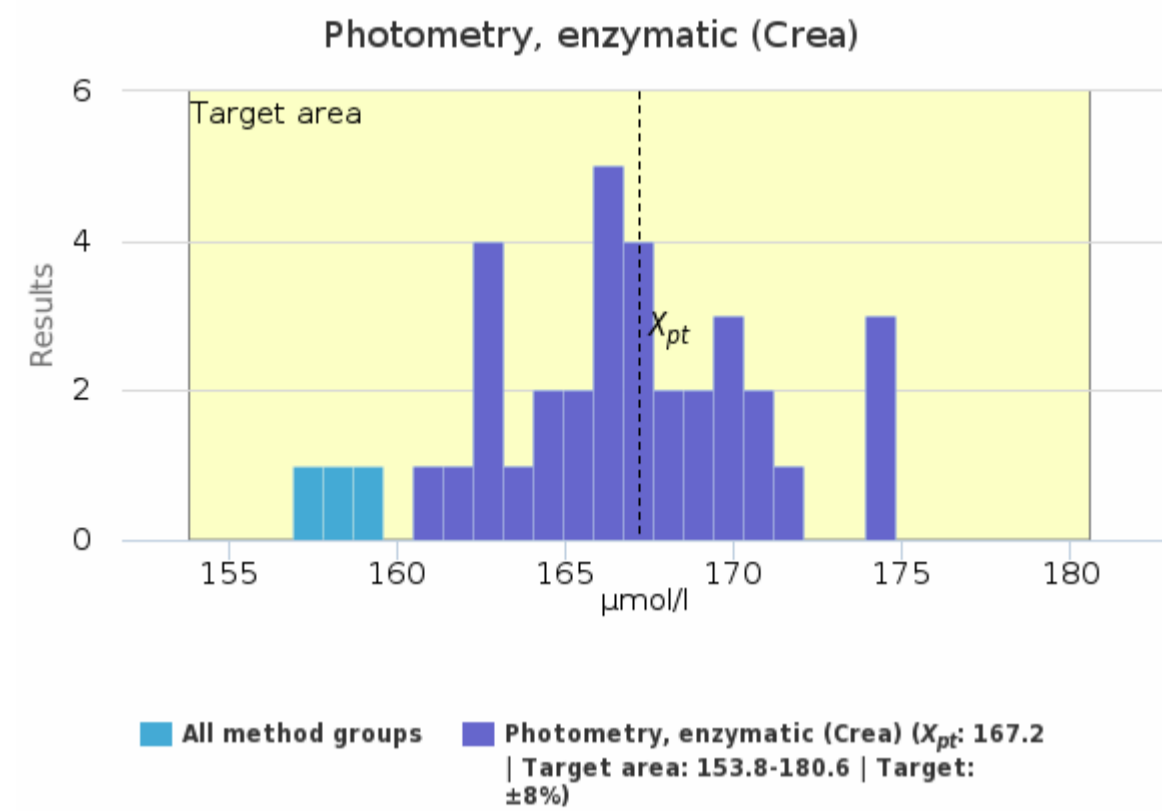
DayTrol | Crea, µmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Crea)		167.2	3.6	2.17	33	521
	Abbott Alinity	163.0	1.8	1.12	2	43
	Roche cobas	168.1	4.2	2.50	2	47
	Siemens Atellica	-	-	-	1	8
	Siemens Dimension Vista System	-	-	-	1	10
	Thermo Scientific	167.1	3.4	2.05	27	413
Photometry, Jaffe		158.0	1.0	0.63	3	37
	BioSystems	-	-	-	1	8
	Human	-	-	-	1	8
	Thermo Scientific	-	-	-	1	21

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Crea)		167.2	3.6	2.17	33	521
	Alinity c	163.0	1.8	1.12	2	43
	Atellica CH 930	-	-	-	1	8
	cobas c111	-	-	-	1	19
	cobas c501	-	-	-	1	28
	Indiko	165.4	1.6	0.99	2	29
	Indiko Plus	167.6	3.6	2.17	9	136
	Konelab Prime 30	169.2	1.4	0.80	2	34
	Konelab PRIME 60i	170.6	3.1	1.84	4	71
	Konelab 20	-	-	-	1	7
	Konelab 20i	165.6	3.5	2.13	7	98
	Konelab 20XT	-	-	-	1	4
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23
Photometry, Jaffe		158.0	1.0	0.63	3	37
	Biosystems BA-400	-	-	-	1	8
	Indiko Plus	-	-	-	1	21
	Konelab 20i	-	-	-	1	8

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Crea)		167.2	3.6	2.17	33	521
	Creatininase / PAP; photometry	166.6	2.9	1.76	11	208
	Creatinine deiminase / NADPH; photometry	164.9	1.7	1.03	2	31
	Enzyme / H2O2 / chromogen; photometry	168.0	4.2	2.48	16	239
	Sarcosine oxidase method	166.9	4.1	2.45	4	43

Photometry, Jaffe		158.0	1.0	0.63	3	37
	Alkaline picrate (Jaffe); photometry	158.0	1.0	0.63	3	37

DayTrol | Lactate, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry enzymatic (Lactate)	2.13	2.11	0.06	2.6	0.03	2.08	2.19	-	3	46
All	**2.13**	**2.11**	**0.06**	**2.6**	**0.03**	**2.08**	**2.19**	**-**	**3**	**46**

Photometry enzymatic (Lactate)

All method groups — Photometry enzymatic (Lactate) (X_{pt}: 2.13 | Target area: 2.00-2.26 | Target: ±6%)
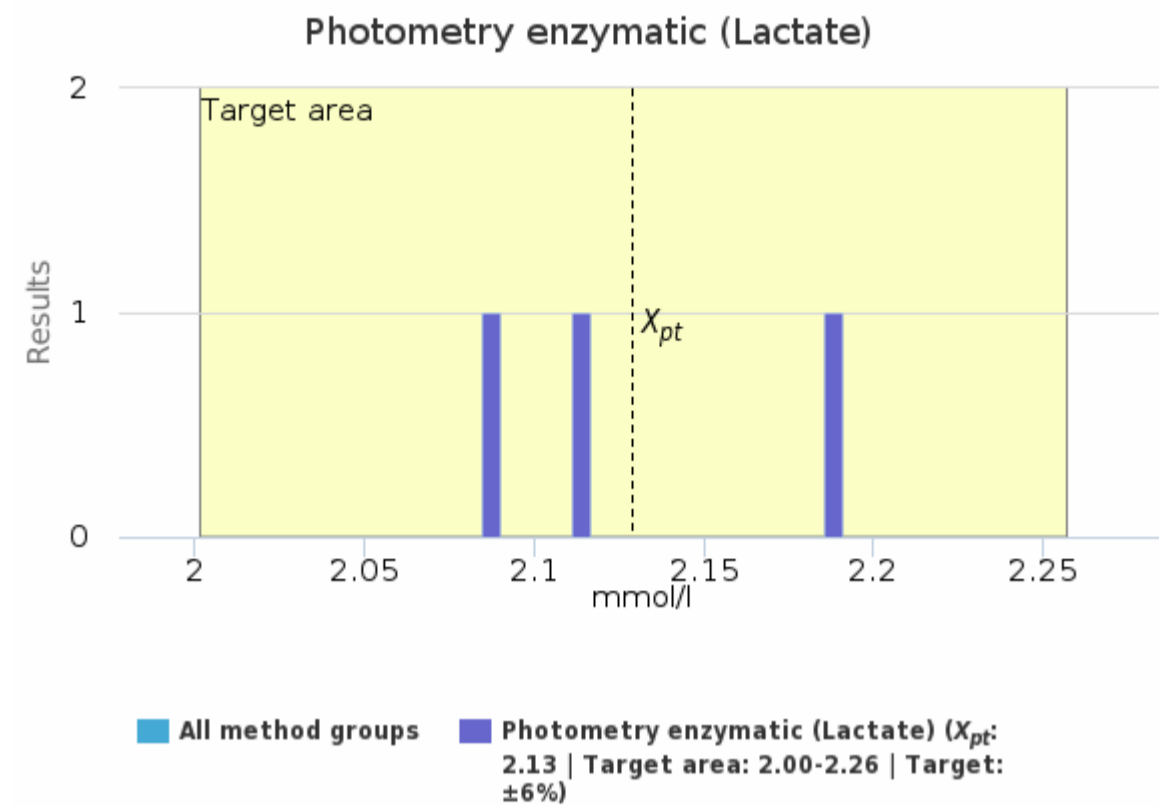
DayTrol | Lactate, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry enzymatic (Lactate)		2.13	0.06	2.588	3	46
	Abbott Alinity	-	-	-	1	13
	Roche cobas	-	-	-	1	28
	Thermo Scientific	-	-	-	1	5

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry enzymatic (Lactate)		2.13	0.06	2.588	3	46
	Alinity c	-	-	-	1	13
	cobas c501	-	-	-	1	28
	Konelab 20XT	-	-	-	1	5

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry enzymatic (Lactate)		2.13	0.06	2.588	3	46
	Lactate, NAD / NADH; photometry	-	-	-	1	28
	Lactate oxidase / H2O2 / 4-aminoantipyrene; photometry	2.15	0.06	2.589	2	18

LABQUALITY

DayTrol | LD, U/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
IFCC methods (LDH)	130	128	6	4.4	3	125	138	-	4	71
All	**130**	**128**	**6**	**4.4**	**3**	**125**	**138**	**-**	**4**	**71**

IFCC methods (LDH)

All method groups · IFCC methods (LDH) (X_{pt}: 130 | Target area: 114-145 | Target: ±12%)
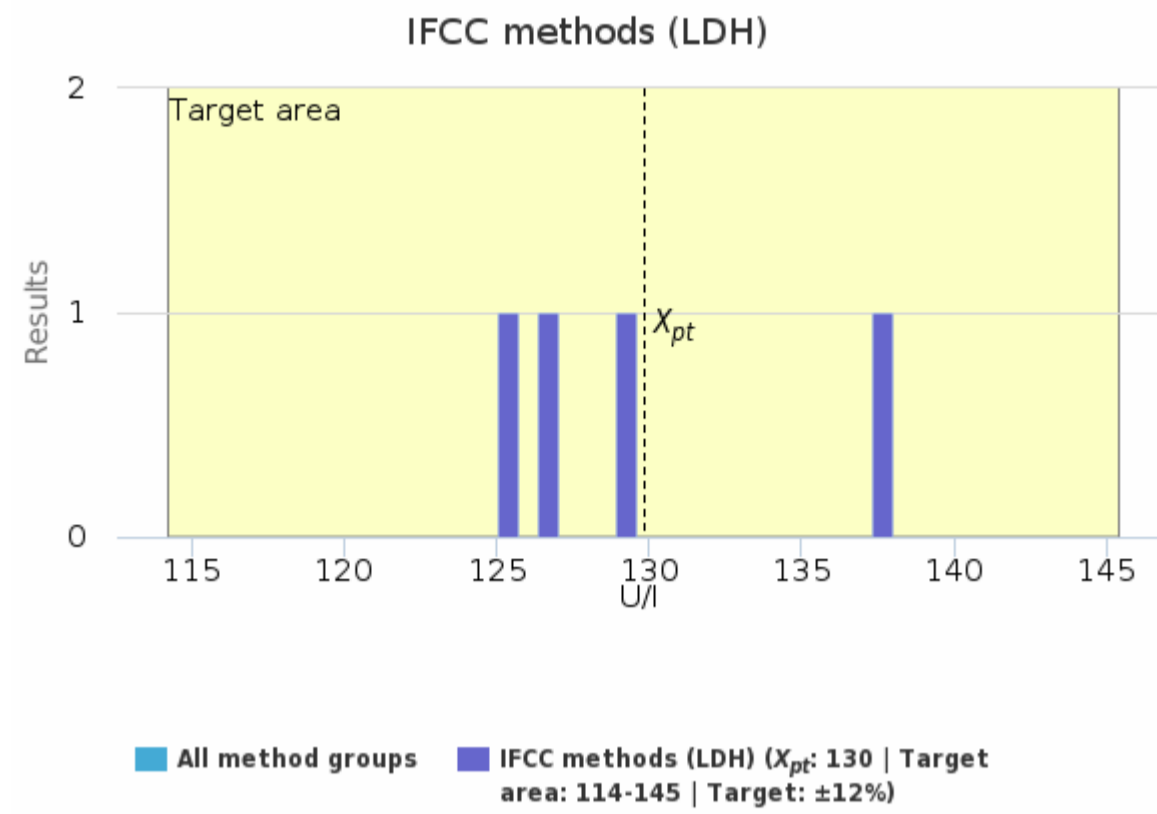
DayTrol | LD, U/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
IFCC methods (LDH)		130	6	4.4	4	71
	Abbott Alinity	126	1	0.9	2	42
	Roche cobas	-	-	-	1	28
	Thermo Scientific	-	-	-	1	1

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
IFCC methods (LDH)		130	6	4.4	4	71
	Alinity c	126	1	0.9	2	42
	cobas c501	-	-	-	1	28
	Indiko Plus	-	-	-	1	1

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
IFCC methods (LDH)		130	6	4.4	4	71
	Lactate, NAD / NADH; photometry	130	6	4.4	4	71

LABQUALITY

DayTrol | Li, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry (Litium)	1.09	1.09	0.04	3.3	0.03	1.06	1.11	-	2	28
All	**1.09**	**1.09**	**0.04**	**3.3**	**0.03**	**1.06**	**1.11**	**-**	**2**	**28**

Photometry (Litium)

Legend: ■ All method groups ■ Photometry (Litium) (X_{pt}: 1.09 | Target area: 1.02-1.15 | Target: ±6%)
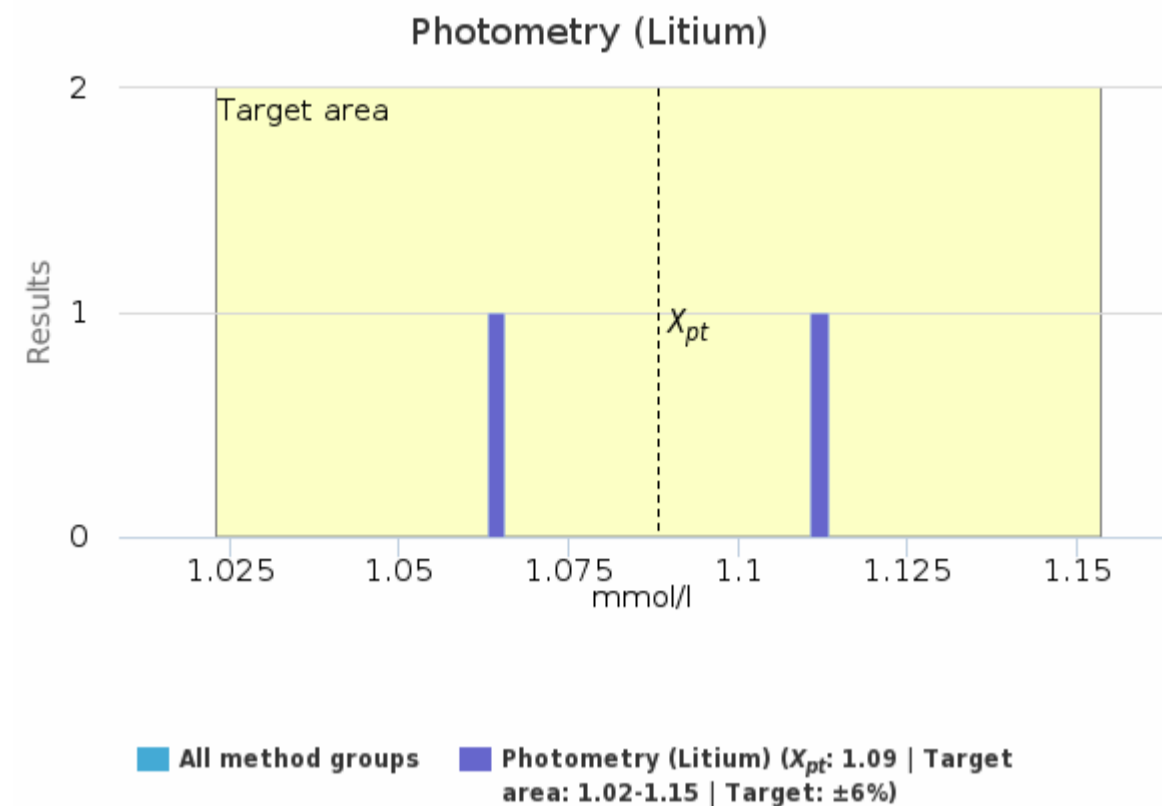
DayTrol | Li, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry (Litium)		1.09	0.04	3.266	2	28
	Abbott Alinity	-	-	-	1	13
	Thermo Scientific	-	-	-	1	15

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry (Litium)		1.09	0.04	3.266	2	28
	Alinity c	-	-	-	1	13
	Indiko Plus	-	-	-	1	15

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry (Litium)		1.09	0.04	3.266	2	28
	Chromogen	1.09	0.04	3.266	2	28

LABQUALITY

DayTrol | Mg, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry (Mg)	0.94	0.94	0.02	1.8	<0.01	0.92	0.96	-	5	58
All	**0.94**	**0.94**	**0.02**	**1.8**	**<0.01**	**0.92**	**0.96**	**-**	**5**	**58**
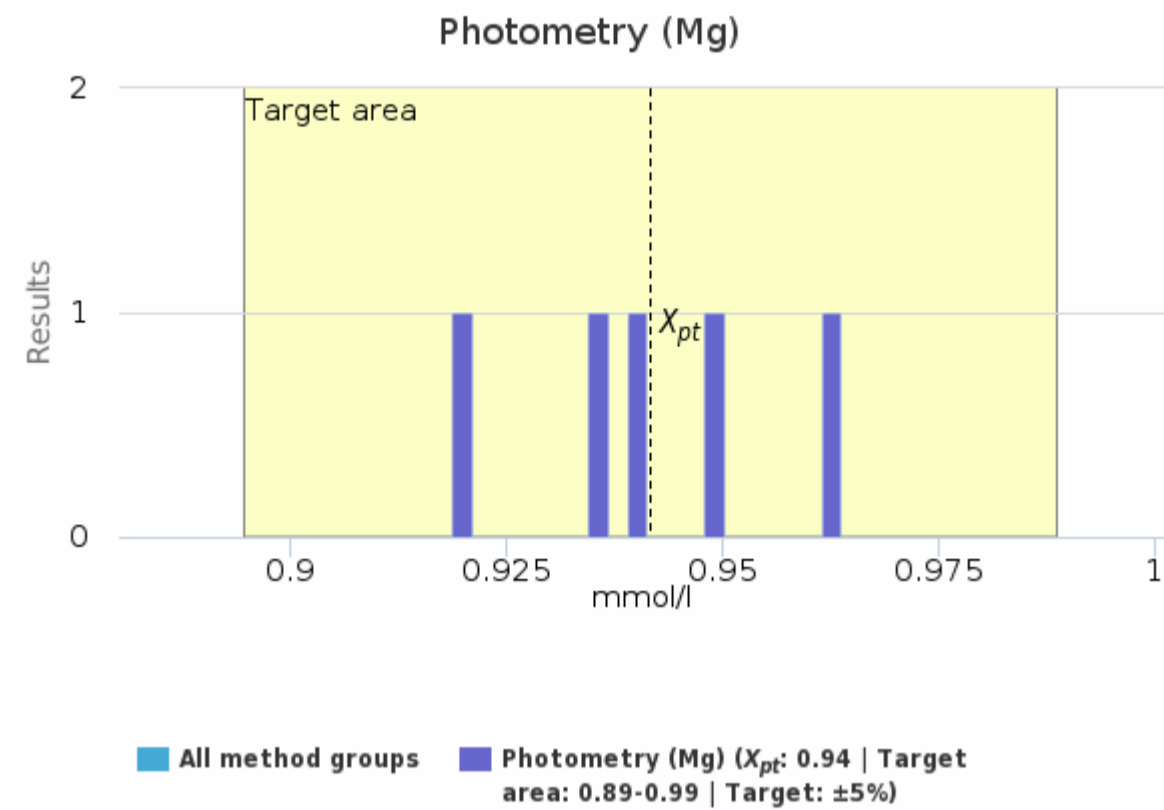
DayTrol | Mg, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry (Mg)		0.94	0.02	1.779	5	58
	Abbott Alinity	-	-	-	1	13
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	-	-	-	1	1

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry (Mg)		0.94	0.02	1.779	5	58
	Alinity c	-	-	-	1	13
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko Plus	-	-	-	1	1

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry (Mg)		0.94	0.02	1.779	5	58
	Calmagite; photometry	-	-	-	1	8
	Enzymatic method; absorption photometry	-	-	-	1	13
	Xylidyl blue; photometry	0.94	0.02	1.714	3	37

DayTrol | Na, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
ISE direct	145	145	1	0.7	<1	143	148	-	27	429
ISE indirect	149	148	3	2.0	1	146	153	-	4	78
All	**145**	**145**	**1**	**0.8**	**<1**	**143**	**148**	**1**	**31**	**507**
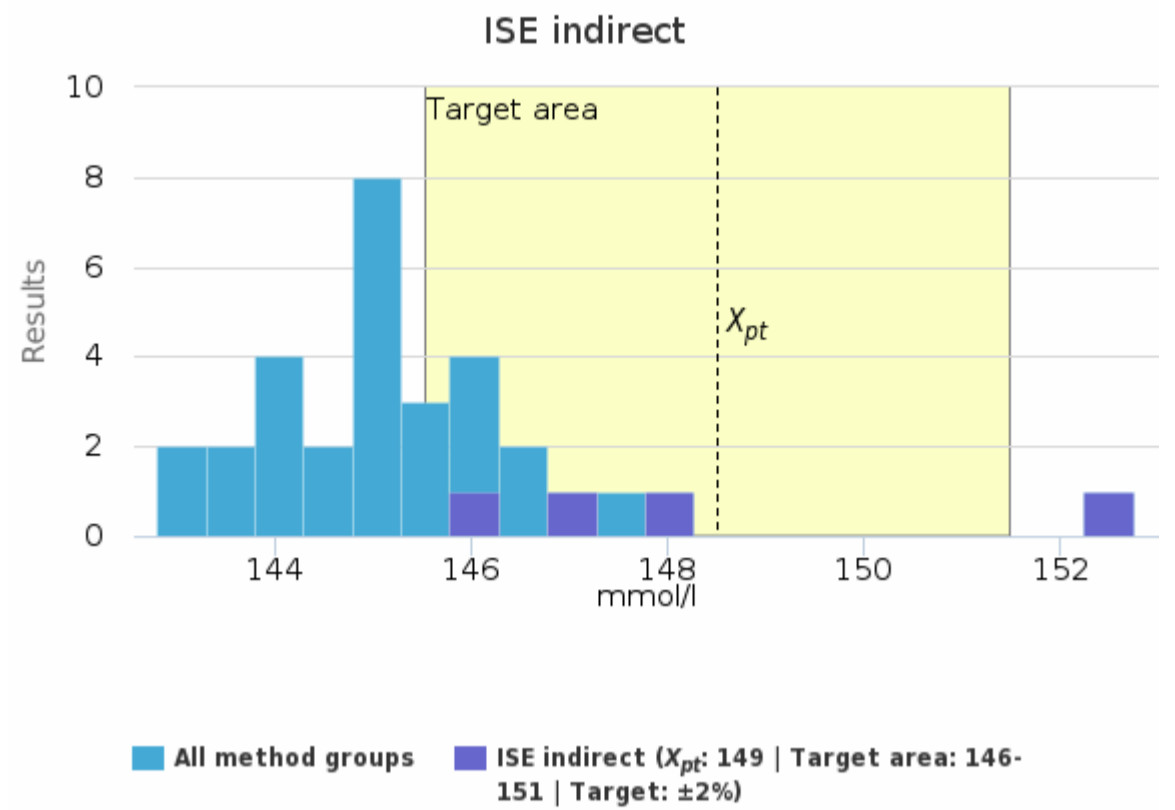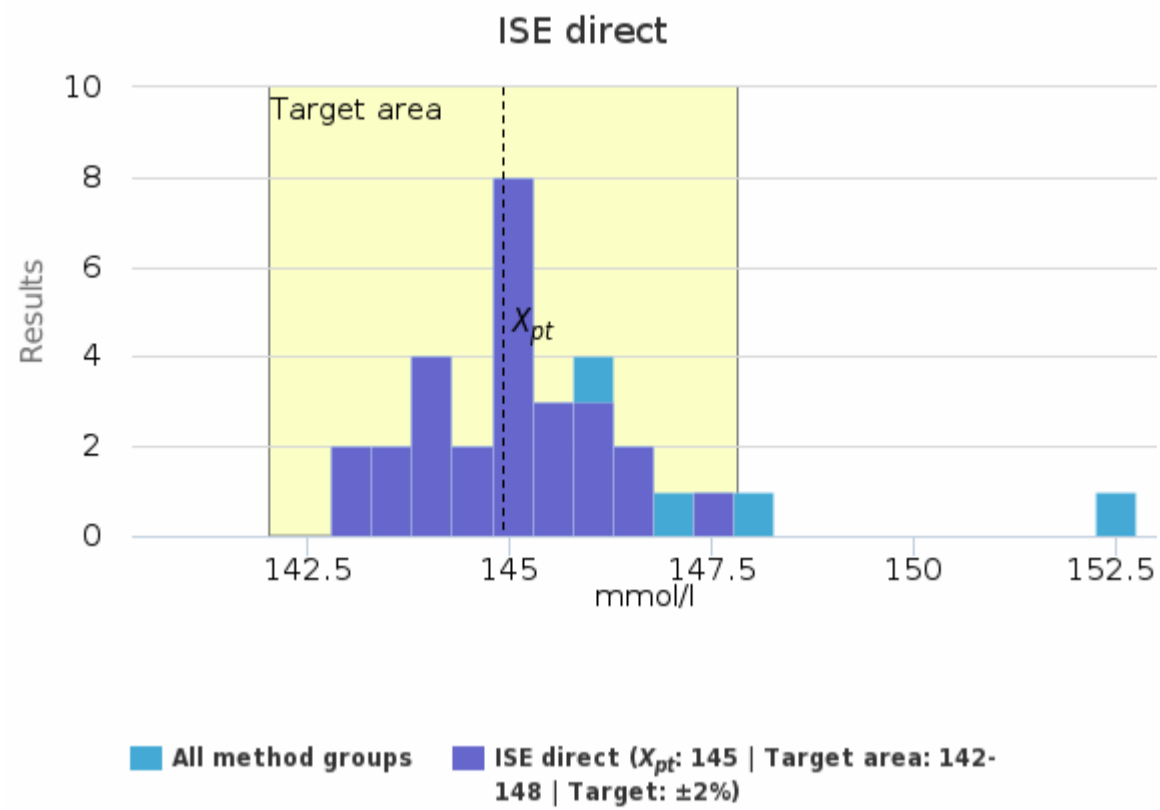
DayTrol | Na, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
ISE direct		145	1	0.7	27	429
	Easylite	-	-	-	1	8
	Thermo Scientific	145	1	0.7	24	399
	Thermo Scientific electrolyte analysers	145	1	0.7	2	22
ISE indirect		149	3	2.0	4	78
	Abbott Alinity	147	2	1.0	2	42
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
ISE direct		145	1	0.7	27	429
	EasyLyte	-	-	-	1	8
	Indiko	-	-	-	1	21
	Indiko Plus	145	1	0.7	10	157
	Konelab Prime 30	145	2	1.2	2	34
	Konelab PRIME 60i	145	<1	0.6	4	71
	Konelab 20	-	-	-	1	7
	Konelab 20i	144	<1	0.6	6	87
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23
ISE indirect		149	3	2.0	4	78
	Alinity c	147	2	1.0	2	42
	Atellica CH 930	-	-	-	1	8
	cobas c501	-	-	-	1	28

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
ISE direct		145	1	0.7	27	429
	Direct potentiometry	145	1	0.7	27	429
ISE indirect		149	3	2.0	4	78
	Indirect potentiometry	149	3	2.0	4	78

LABQUALITY

DayTrol | Prot, g/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry (Prot)	55.9	55.9	1.2	2.2	0.5	54.6	57.6	-	6	62
All	**55.9**	**55.9**	**1.2**	**2.2**	**0.5**	**54.6**	**57.6**	**-**	**6**	**62**

Photometry (Prot)

Legend: All method groups | Photometry (Prot) (X_{pt}: 55.9 | Target area: 53.1-58.7 | Target: ±5%)
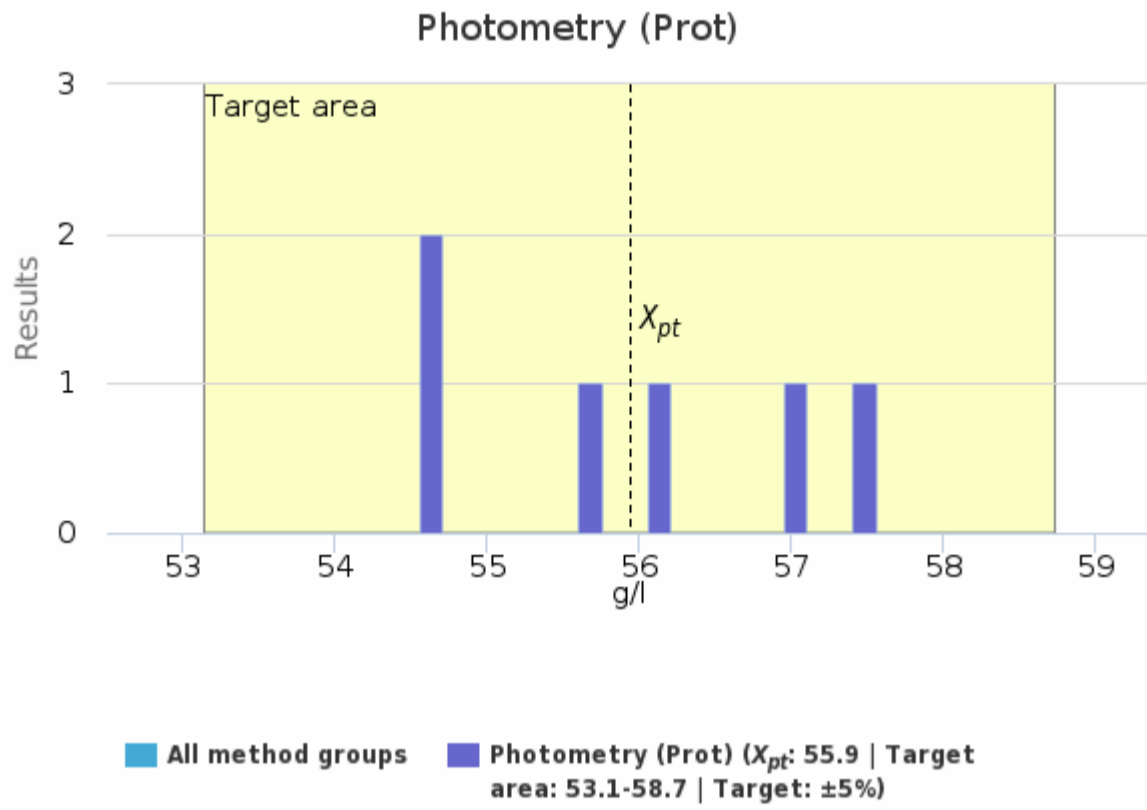
DayTrol | Prot, g/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry (Prot)		55.9	1.2	2.18	6	62
	Abbott Alinity	-	-	-	1	9
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific T PROT Plus	56.4	0.9	1.57	2	9

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry (Prot)		55.9	1.2	2.18	6	62
	Alinity c	-	-	-	1	9
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko Plus	-	-	-	1	1
	Konelab 20i	-	-	-	1	8

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry (Prot)		55.9	1.2	2.18	6	62
	Biuret method; photometry	55.9	1.2	2.18	6	62

LABQUALITY

DayTrol | Transf, g/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Turbidometry (Transf)	-	-	-	-	-	2.06	2.06	-	1	1
All	**-**	**-**	**-**	**-**	**-**	**2.06**	**2.06**	**-**	**1**	**1**

Turbidometry (Transf)

■ All method groups ■ Turbidometry (Transf)
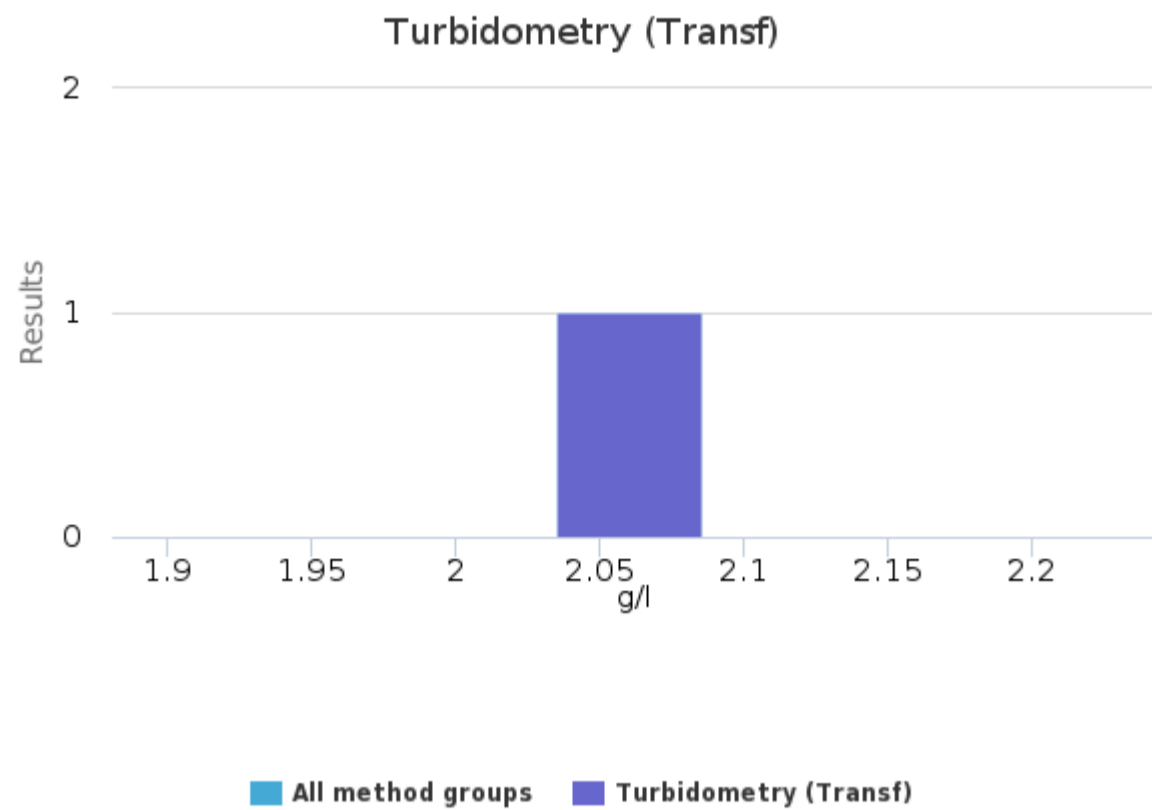
DayTrol | Transf, g/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Turbidometry (Transf)		-	-	-	1	1
	Thermo Scientific	-	-	-	1	1

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Turbidometry (Transf)		-	-	-	1	1
	Indiko Plus	-	-	-	1	1

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Turbidometry (Transf)		-	-	-	1	1
	Antigen-antibody (Ag-Ab) complex; turbidimetry	-	-	-	1	1

DayTrol | TfR, mg/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Thermo Scientific (TfR)	-	-	-	-	-	0.68	0.68	-	1	1
All	**-**	**-**	**-**	**-**	**-**	**0.68**	**0.68**	**-**	**1**	**1**
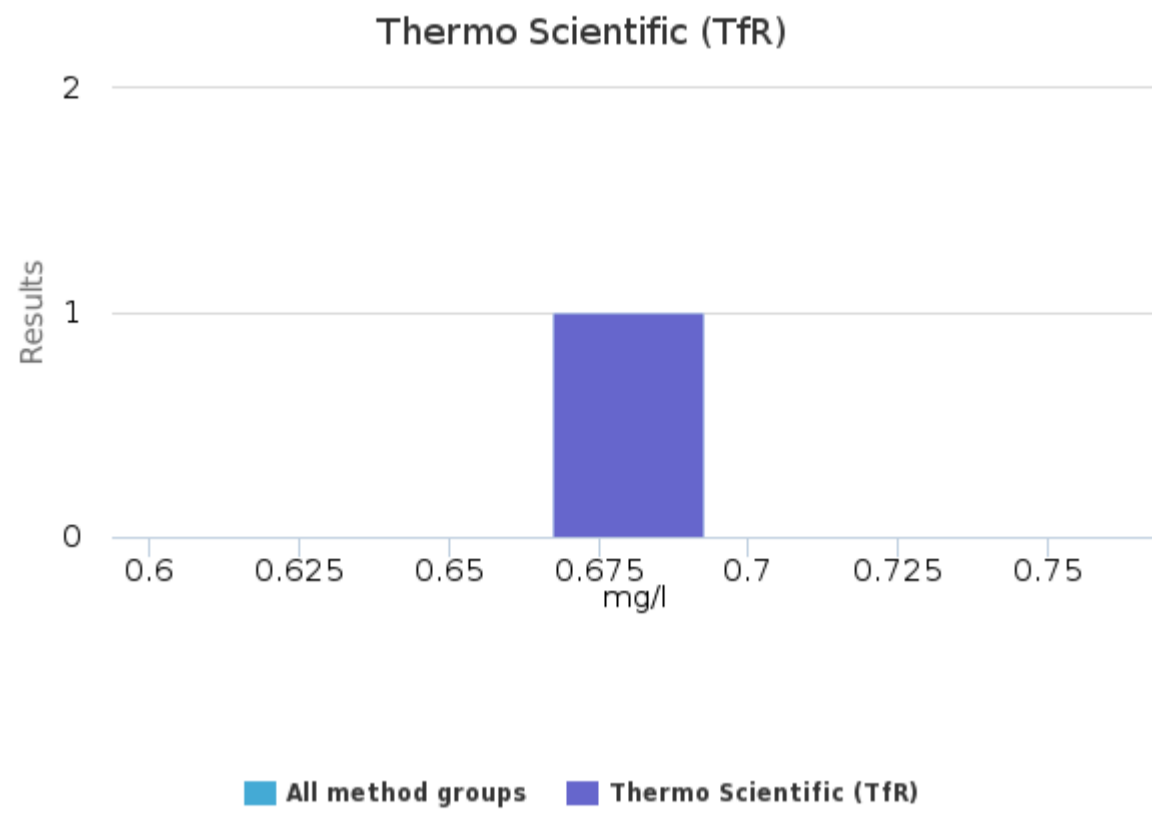
DayTrol | TfR, mg/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Thermo Scientific (TfR)		-	-	-	1	1
	Thermo Scientific sTfR	-	-	-	1	1

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Thermo Scientific (TfR)		-	-	-	1	1
	Indiko Plus	-	-	-	1	1

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Thermo Scientific (TfR)		-	-	-	1	1
	Antigen-antibody (Ag-Ab) complex; turbidimetry	-	-	-	1	1

DayTrol | Trigly, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry, enzymatic (Trigly)	1.51	1.51	0.06	3.7	<0.01	1.40	1.63	-	34	511
All	**1.51**	**1.51**	**0.06**	**3.7**	**<0.01**	**1.40**	**1.63**	**-**	**34**	**511**

Photometry, enzymatic (Trigly)

Legend: All method groups | Photometry, enzymatic (Trigly) (X_{pt}: 1.51 | Target area: 1.28-1.74 | Target: ±15%)
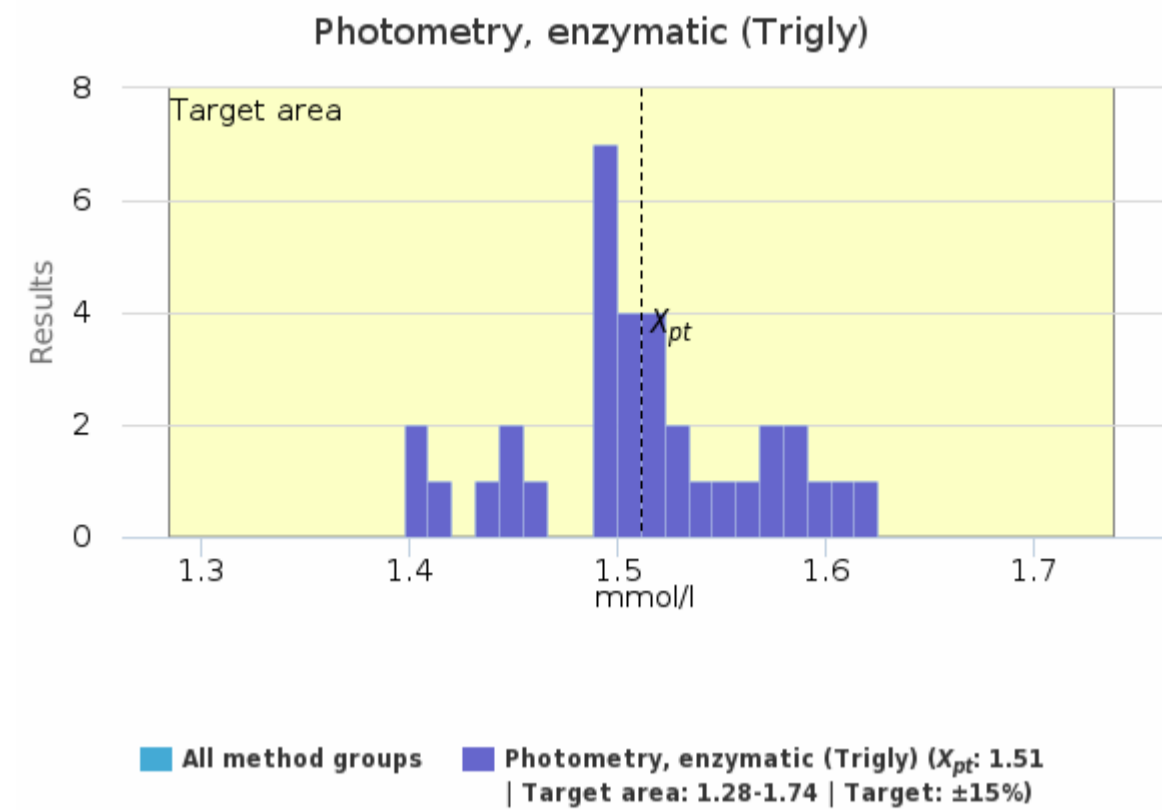
DayTrol | Trigly, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Trigly)		1.51	0.06	3.745	34	511
	Abbott Alinity	1.44	0.02	1.057	2	43
	BioSystems	-	-	-	1	8
	Roche cobas	1.47	0.08	5.258	2	48
	Thermo Scientific	1.52	0.05	3.287	29	412

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Trigly)		1.51	0.06	3.745	34	511
	Alinity c	1.44	0.02	1.057	2	43
	Biosystems BA-400	-	-	-	1	8
	cobas c111	-	-	-	1	20
	cobas c501	-	-	-	1	28
	Indiko	1.52	0.09	5.928	3	37
	Indiko Plus	1.48	0.03	2.258	9	134
	Konelab Prime 30	1.54	0.03	1.802	2	34
	Konelab PRIME 60i	1.53	0.04	2.308	4	68
	Konelab 20	-	-	-	1	7
	Konelab 20i	1.56	0.04	2.790	7	84
	Konelab 20XT	-	-	-	1	4
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Trigly)		1.51	0.06	3.745	34	511
	Lipase, GDH / NADH; photometry	1.53	0.07	4.670	5	85
	Lipase, GK/G-3-P-oxidase, H2O2, peroxidase / chromogen; photometry	1.51	0.05	3.620	29	426

LABQUALITY

DayTrol | Urea, mmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry, enzymatic (Urea)	5.25	5.29	0.17	3.2	0.06	4.95	5.45	-	7	96
All	**5.25**	**5.29**	**0.17**	**3.2**	**0.06**	**4.95**	**5.45**	**-**	**7**	**96**

Photometry, enzymatic (Urea)

All method groups ■ Photometry, enzymatic (Urea) (X_{pt}: 5.25 | Target area: 4.73-5.78 | Target: ±10%)
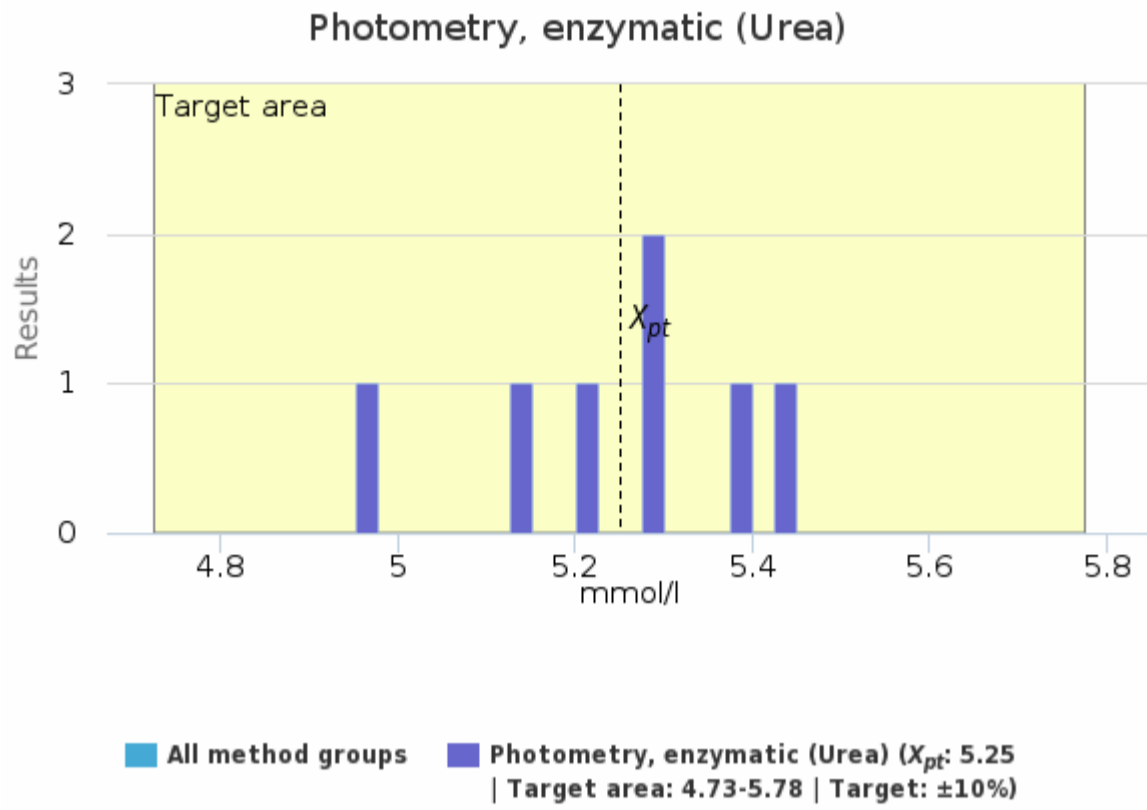
DayTrol | Urea, mmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Urea)		5.25	0.17	3.196	7	96
	Abbott Alinity	5.09	0.19	3.790	2	43
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	5.22	0.12	2.288	2	9

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Urea)		5.25	0.17	3.196	7	96
	Alinity c	5.09	0.19	3.790	2	43
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko Plus	-	-	-	1	1
	Konelab 20i	-	-	-	1	8

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Urea)		5.25	0.17	3.196	7	96
	Urease, glutamate dehydrogenase / NADH; photometry	5.25	0.17	3.196	7	96

LABQUALITY

DayTrol | Uric acid, µmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry, enzymatic (Uric acid)	390	390	12	3.2	3	371	425	-	18	310
All	**390**	**390**	**12**	**3.2**	**3**	**371**	**425**	**-**	**18**	**310**
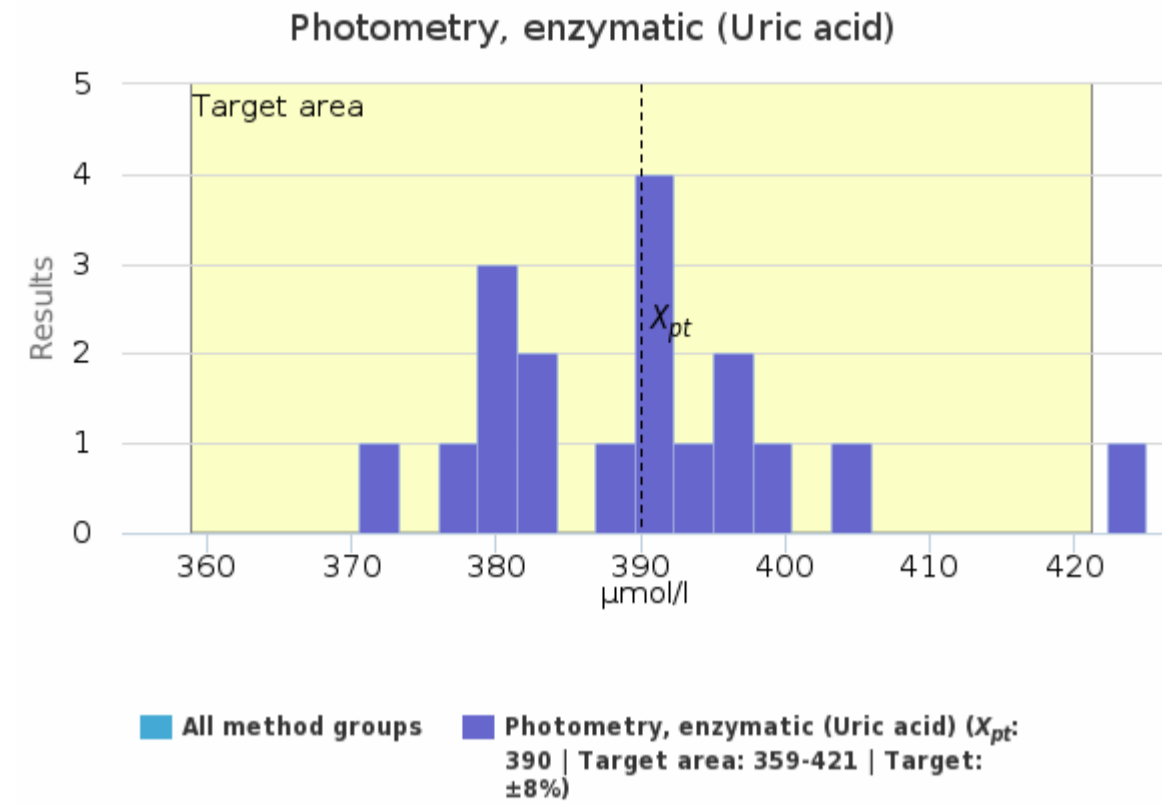
Photometry, enzymatic (Uric acid)

All method groups | Photometry, enzymatic (Uric acid) (X_{pt}: 390 | Target area: 359-421 | Target: ±8%)

DayTrol | Uric acid, µmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Uric acid)		390	12	3.2	18	310
	Abbott Alinity	373	4	1.1	2	43
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Thermo Scientific	390	8	2.0	14	231

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Uric acid)		390	12	3.2	18	310
	Alinity c	373	4	1.1	2	43
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko Plus	386	6	1.6	4	63
	Konelab Prime 30	-	-	-	1	13
	Konelab PRIME 60i	393	3	0.7	3	54
	Konelab 20i	387	9	2.2	4	57
	Konelab 20XTi	-	-	-	1	21
	Konelab 30i	-	-	-	1	23

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry, enzymatic (Uric acid)		390	12	3.2	18	310
	Uricase / allantoin; photometry	387	6	1.6	6	92
	Uricase, H2O2, peroxidase / chromogen; photometry	392	15	3.7	12	218

DayTrol | Fe, µmol/l

Methodics	X_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n devices	n results
Photometry (Fe)	25.6	25.8	1.6	6.4	0.5	21.9	27.5	-	9	117
All	**25.6**	**25.8**	**1.6**	**6.4**	**0.5**	**21.9**	**27.5**	**-**	**9**	**117**

Photometry (Fe)

All method groups — Photometry (Fe) (X_{pt}: 25.6 | Target area: 22.5-28.6 | Target: ±12%)
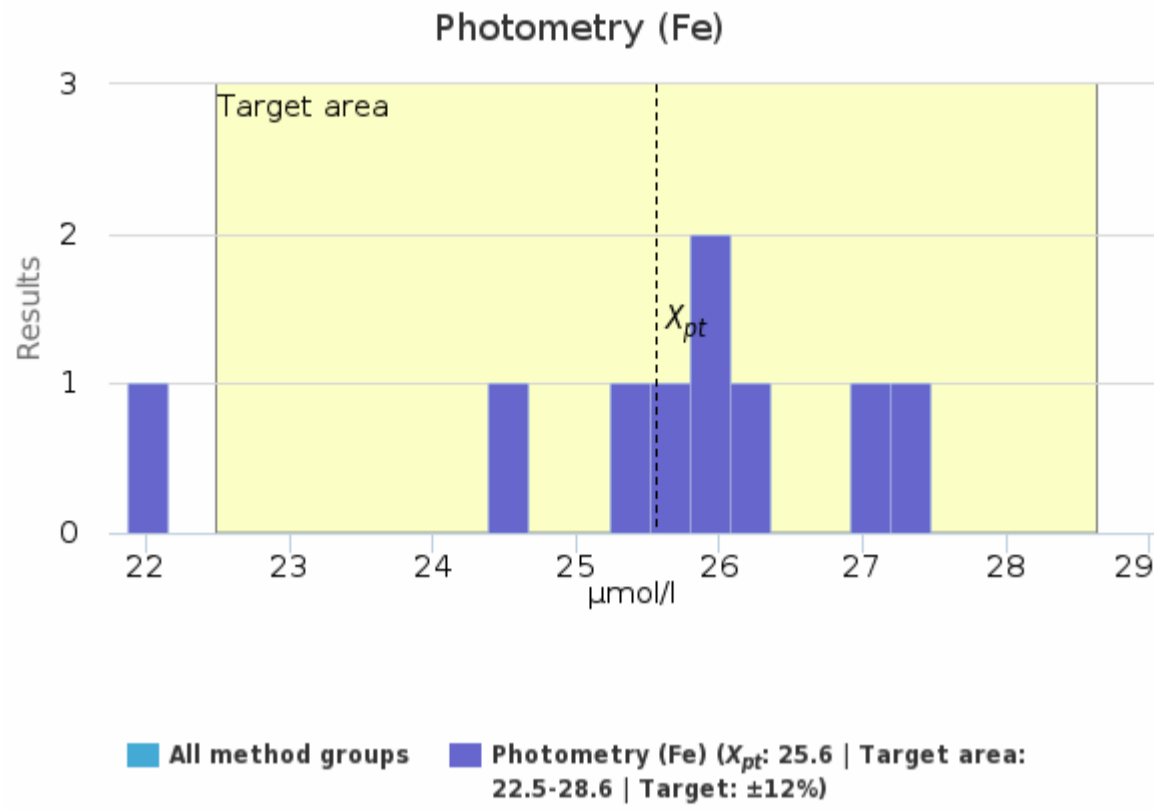
DayTrol | Fe, µmol/l, Additional summary

Methodics	Method	X_{pt}	sd	CV%	n devices	n results
Photometry (Fe)		25.6	1.6	6.45	9	117
	Abbott Alinity	25.6	0.3	1.12	2	43
	BioSystems	-	-	-	1	8
	Roche cobas	-	-	-	1	28
	Siemens Atellica	-	-	-	1	8
	Thermo Scientific	26.7	0.7	2.68	4	30

Methodics	Instrument	X_{pt}	sd	CV%	n devices	n results
Photometry (Fe)		25.6	1.6	6.45	9	117
	Alinity c	25.6	0.3	1.12	2	43
	Atellica CH 930	-	-	-	1	8
	Biosystems BA-400	-	-	-	1	8
	cobas c501	-	-	-	1	28
	Indiko Plus	26.7	0.6	2.18	2	10
	Konelab PRIME 60i	-	-	-	1	12
	Konelab 20i	-	-	-	1	8

Methodics	Chemical principle	X_{pt}	sd	CV%	n devices	n results
Photometry (Fe)		25.6	1.6	6.45	9	117
	Ferene; photometry	26.4	0.8	3.00	6	73
	Ferrozine; photometry	24.0	1.9	8.00	3	44

Report info

Participants

49 participants from 5 countries.

Report info

Your own result should be compared to others using the same method.

The laboratory's own result (X_o) is calculated from all results. Assigned values (x_{pt}, target values) are means of the results where results deviating more than +/- 3*standard deviation from the median are removed. The standard uncertainty (u) of the assigned value is reported as standard error of the mean (SEM).

In case the client's result is the only one in the method group, no assigned value will be calculated, no target area shown, and no statistics calculated. In case there are only a few results in the client's own method group, the result can be compared to all method mean or to a group that is similar to the own method.

Results reported with < or > -signs cannot be included in the statistics.

For information on report interpretation and performance evaluation, please see the " EQAS Interpretation guidelines" LabScala User instructions (top right corner ?Help link).

LABQUALITY

External Quality Assessment Scheme
General Chemistry, Daytrol
Round 1, 2023

Specimens
Sample DT23 was lyophilized human serum sample.

Based on the previous tests and the results of this round, the samples are homogeneous, stable, and suitable for the external quality assessment scheme.

The materials were sent without temperature control packaging.

Report info
It is important to read the Final report first, because it contains important information of the samples and results in each round. Laboratory's analytical performance is given when the number of results ≥8 and number of laboratories ≥ 6. In the client specific report, the symbol X_o represents laboratory's own result. If SD and CV% results would be so low that they would be rounded to zero, then their values are presented as a dash.

We kindly ask the customers to review their results and methods and to contact the EQA coordinator if there are any errors in the methods. Customers will no longer receive separate note letters, but notes will be recorded in the client-specific report below the histogram if needed.

Comments – Expert
This year's sample, DT23, was a human serum sample, which electrolyte, glucose, cholesterol values and most of the enzyme activities were in the normal range. The result variations of this round are generally small. For detailed evaluation of the results of this round, please study the summary report.

End of report

FINAS
Finnish Accreditation Service
PT02 (EN ISO/IEC 17043)

DQS
Quality Management
ISO 9001:2015