LABQUALITY

External Quality Assessment Scheme

Acid-base status and electrolytes Round 1, 2023

Specimens
Please find enclosed samples S001, S002 and S003, each 2.5 mL. The samples are prepared using purified bovine albumin and pure salts in a physiologically buffered matrix. Tonometry with predetermined levels of oxygen, carbon dioxide and nitrogen and different salt concentrations provide three distinct levels for each parameter. You must have a separate sample set for each analyser.

Caution
The samples do not contain preservatives, viscosity adjusters or other additives that might adversely affect electrode measurements. Although these quality control specimens are not derived from human blood, they must be handled with the same care as patient samples.

Examinations
Please see page 2.

Storage and use
After arrival store the unopened samples at +2…8 °C. Do not freeze the samples. The samples must be adapted to room temperature (+25 ± 1 °C), protected from sunlight, before use. Mix the contents by holding the ampoule between the thumb and index finger. Shake vigorously for at least 15 seconds, until a solid layer of bubbles forms on the surface of the liquid. Swirl the ampoule gently to return liquid to the bottom. Allow bubbles to rise (30 - 60 sec) between shaking and opening the ampoule. Carefully snap off the neck of the ampoule but beware of sharp glass (see pictures 1 and 2 on the reverse side). The foam at the top is needed as gas buffer between atmosphere and the sample. Analyse the blood gases within 30 seconds of opening. The components can be determined only once in each sample.

Sample should preferably be aspirated directly or moved with a specific adapter into the instrument. If this is not possible, use a 1 - 2 mL gas-tight syringe with a large needle or capillary tube. Aspirate the sample slowly into the syringe to avoid formation of foam and air bubbles. Remove the needle and air bubbles from the syringe and transfer the sample into the instrument without delay. It should be noticed that even with this technique the results of e.g. oxygen will be more uncertain. The sample is considered as having been drawn from a patient with a body temperature +37 °C. All samples are measured in the same analytical series.

Extra instruction to those laboratories which use Roche OMNI analyzers:
1. All Roche OMNI users must run the samples in BLOOD mode
2. The samples should reach the room temperature (+25 ± 1 °C) before analysis.

Extra instruction to those laboratories which use Radiometer ABL analyzers in creatinine analysing:
Corrections for creatinine determined with Radiometer ABL analyzers. Because ABL analyzers are designed to analyse whole blood, it is necessary to correct the Acid-base status and electrolytes sample result on creatinine as follows:
CREA(corrected) µmol/L = 0.950*CREA(determined)–0.4.
CREA(determined) means that CREA has been determined by ABL as if the EQA sample had been a whole blood sample.

2023-02-06

INSTRUCTIONS

Product no. 2610
LQ750823011-013/NL

If the kit is incomplete or contains damaged specimens, please report immediately to info@labquality.fi.

The results should be reported no later than **February 24, 2023**.

Inquiries
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Acid-base status and electrolytes

Examinations
You can report B-pH, B-pCO_2, B-pO_2, P-Ca-ion actual, P-Ca-ion adj. pH 7.4, P-K, P-Na, P-Cl, Ionized Mg, P-Glucose, P-Lactate, P-Creatinine, P-Urea, Base excess and HCO3 results.

Result reporting
Please enter the results and methods via LabScala (www.labscala.com). If you cannot find your instrument or reagent from the registry, please contact the EQA Coordinator.

We have added sample sets to LabScala form according to your order. Hope this will help your results recording. Please select the instrument to each sample set as you like. On next round they will be seen in the same order. The history of your analyzer will be as in previous rounds = Device Nick name + Instrument name.

If you get a ”negative” result from base excess, please mark you result as minus sign (-) and the numerical value, eg. -4.5 mmol/L so that the minus sign and the following number are together without space.

Please do not report zero results, if some examination is not in use in your laboratory, just leave that result column empty.

S001

LQ750823011

S002

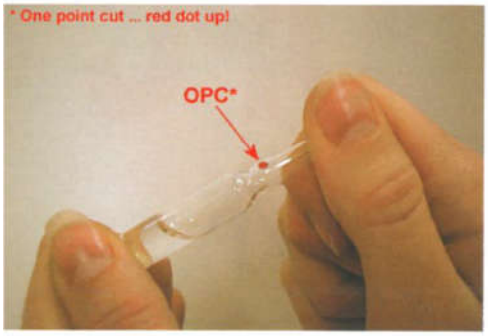
LQ750823012

S003

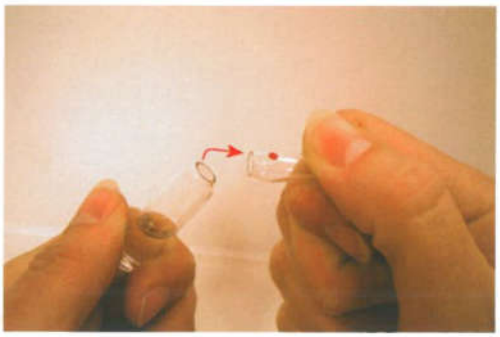
LQ750823013

Pictures 1 and 2:

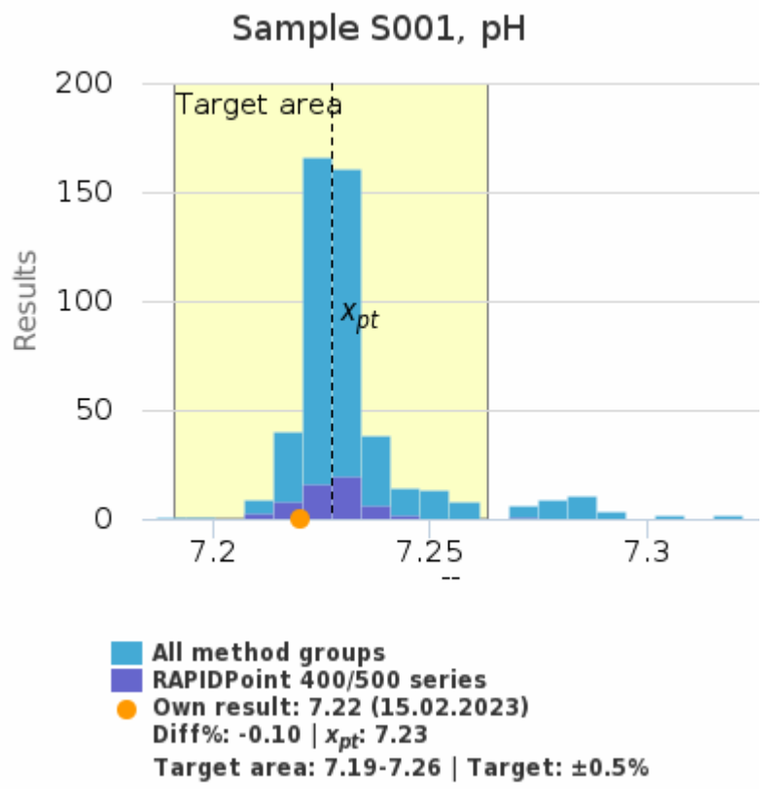
1

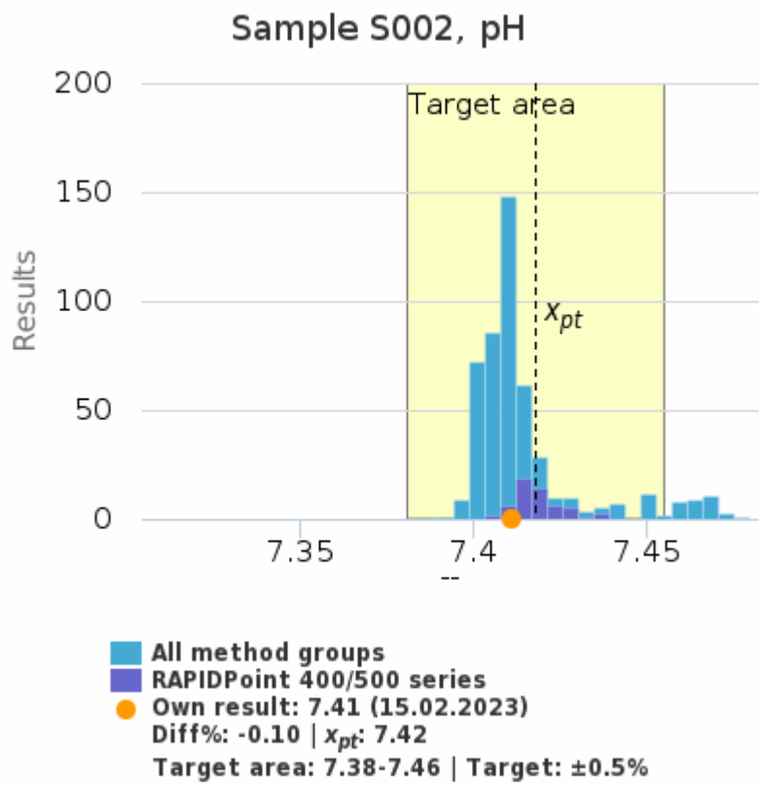


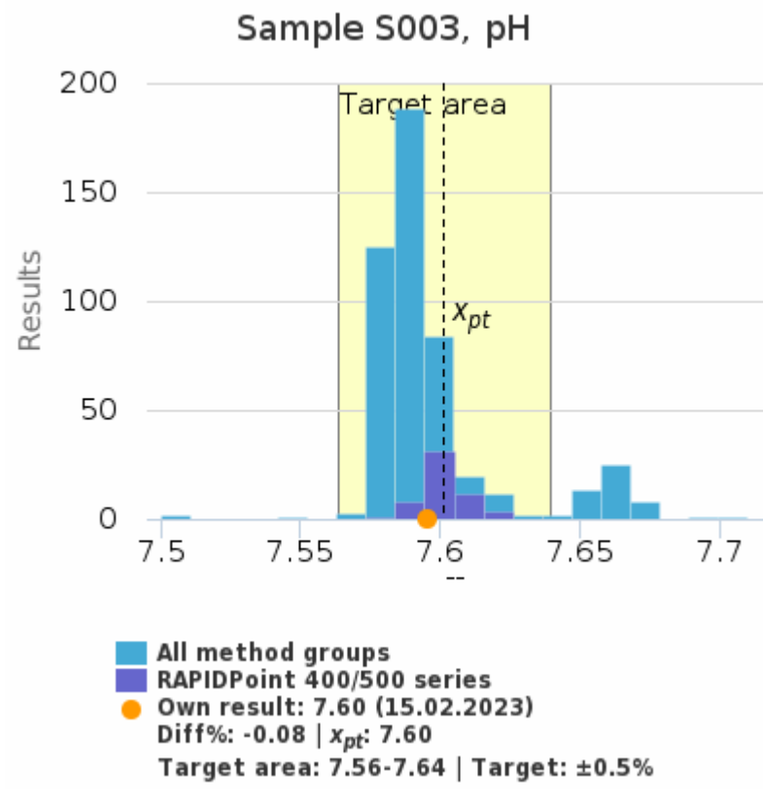
2



pH |Lab



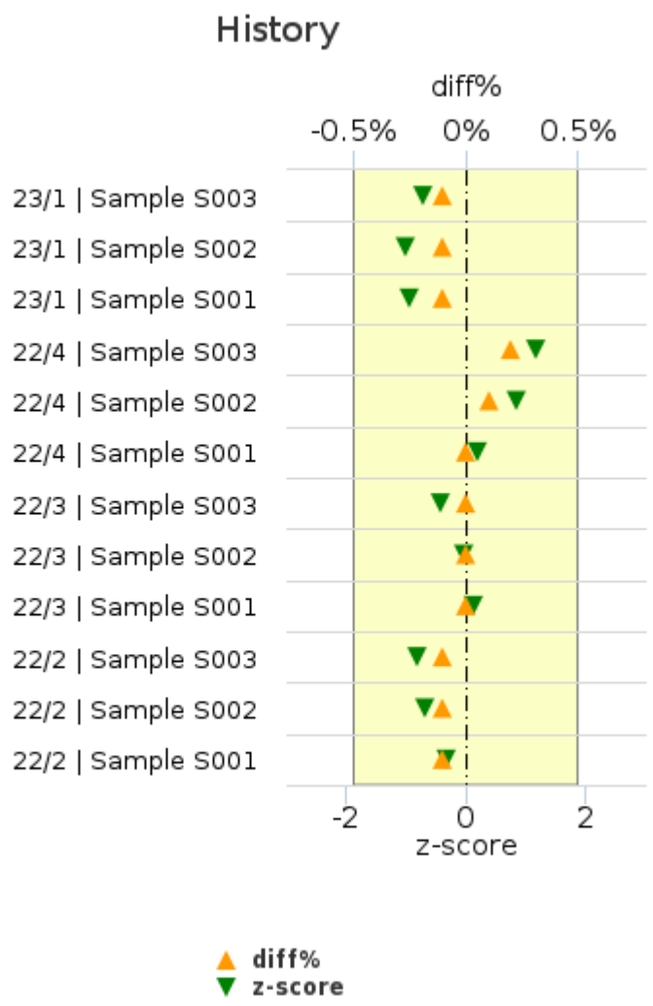




	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	7.23 --	<0.01	<0.01	0.1	56
All methods	7.23 --	0.01	<0.01	0.1	485

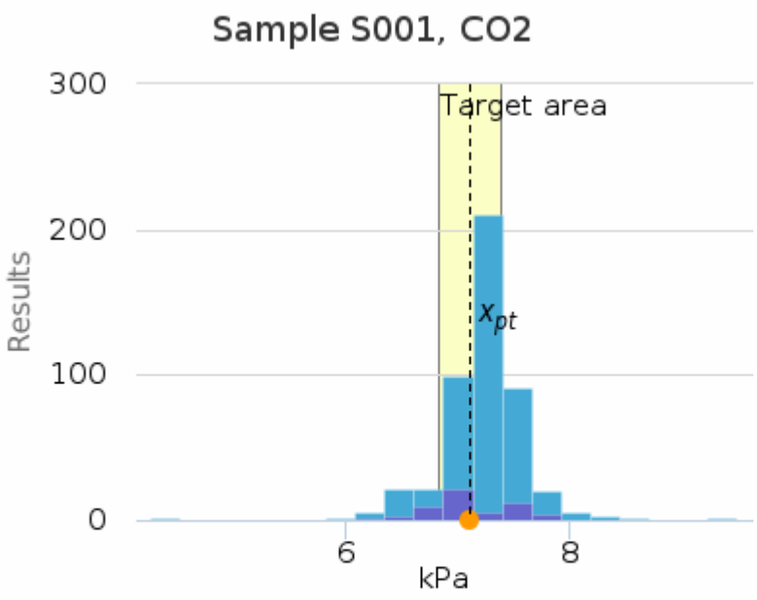
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	7.42 --	<0.01	<0.01	<0.1	56
All methods	7.41 --	0.01	<0.01	0.2	489

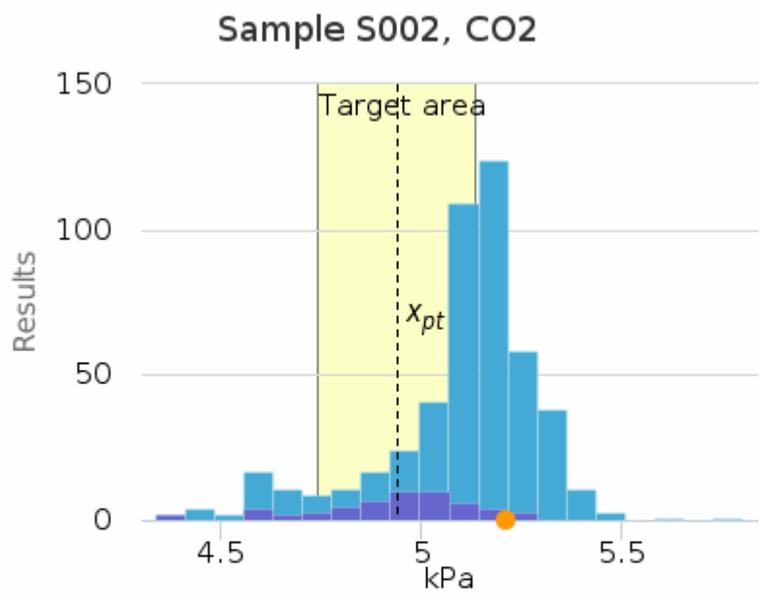
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	7.60 --	<0.01	<0.01	0.1	56
All methods	7.60 --	0.02	<0.01	0.3	487

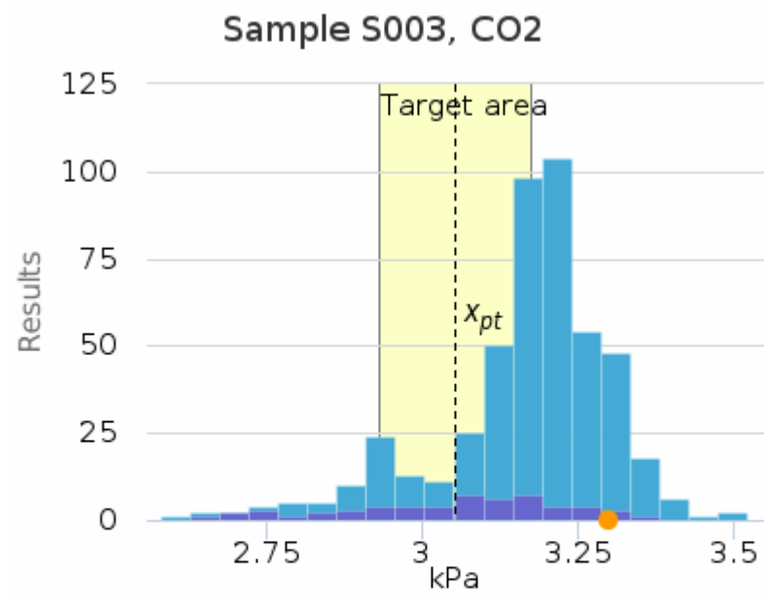


Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	7.60	7.60	-0.08%	-0.71
23/1	Sample S002	7.42	7.41	-0.10%	-1.01
23/1	Sample S001	7.23	7.22	-0.10%	-0.94
22/4	Sample S003	7.51	7.52	0.16%	1.17
22/4	Sample S002	7.34	7.35	0.09%	0.84
22/4	Sample S001	7.14	7.15	0.03%	0.18
22/3	Sample S003	7.51	7.51	-0.04%	-0.42
22/3	Sample S002	7.34	7.34	0.00%	-0.04
22/3	Sample S001	7.14	7.14	0.01%	0.12
22/2	Sample S003	7.60	7.59	-0.09%	-0.80
22/2	Sample S002	7.42	7.42	-0.08%	-0.69
22/2	Sample S001	7.23	7.22	-0.05%	-0.34

CO2 |Lab



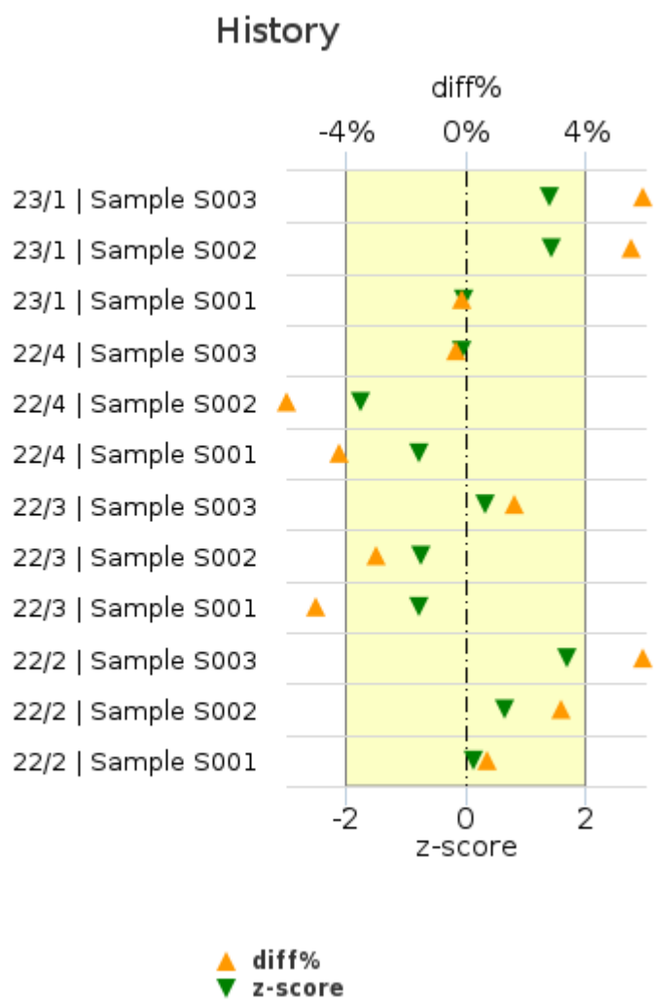




	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	7.1 kPa	0.4	<0.1	5.1	56
All methods	7.2 kPa	0.3	<0.1	4.2	481

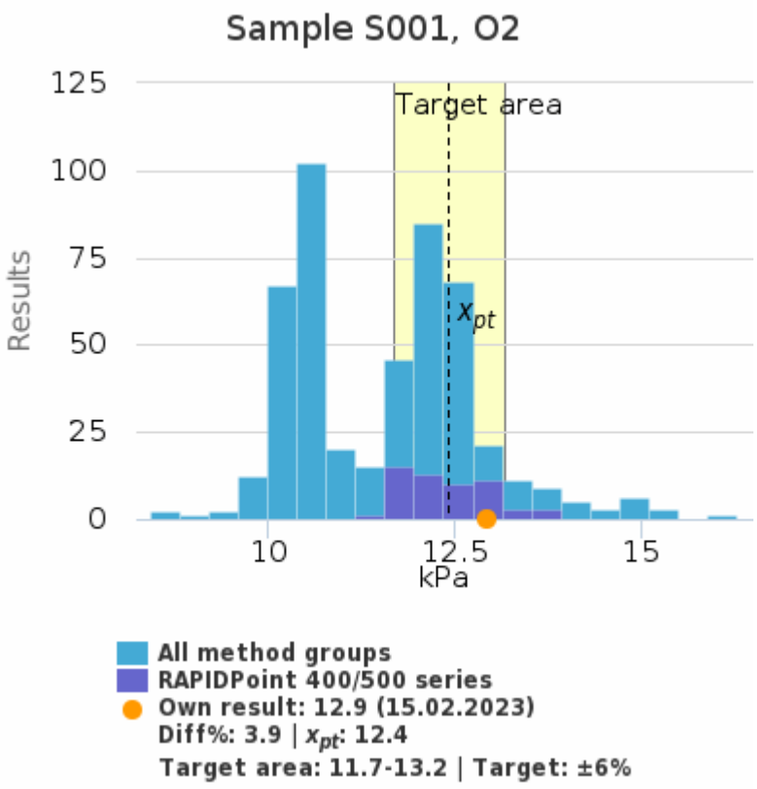
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	4.9 kPa	0.2	<0.1	3.8	56
All methods	5.1 kPa	0.2	<0.1	3.5	483

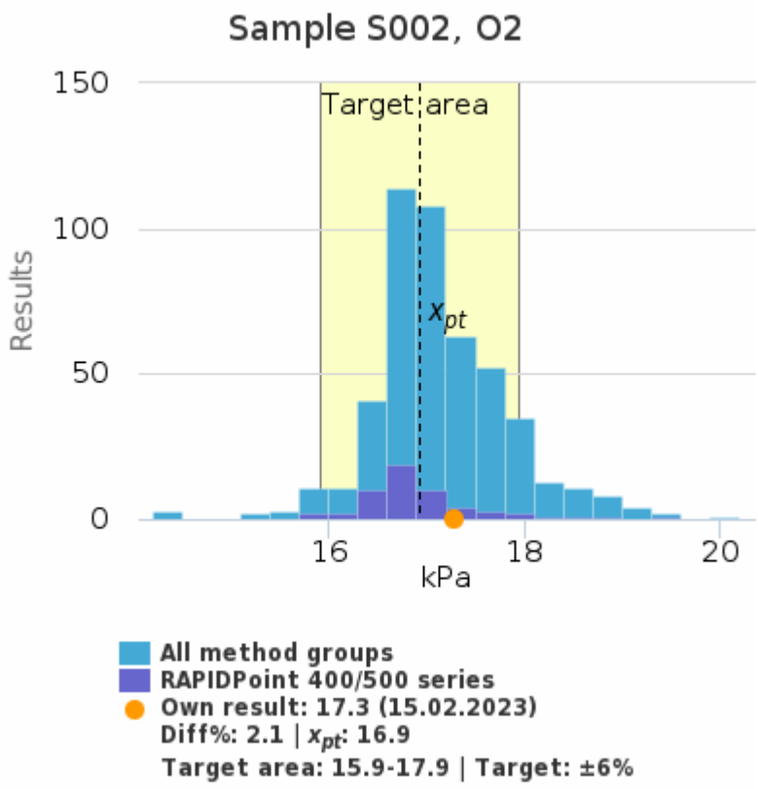
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	3.1 kPa	0.2	<0.1	5.9	56
All methods	3.2 kPa	0.1	<0.1	3.9	483

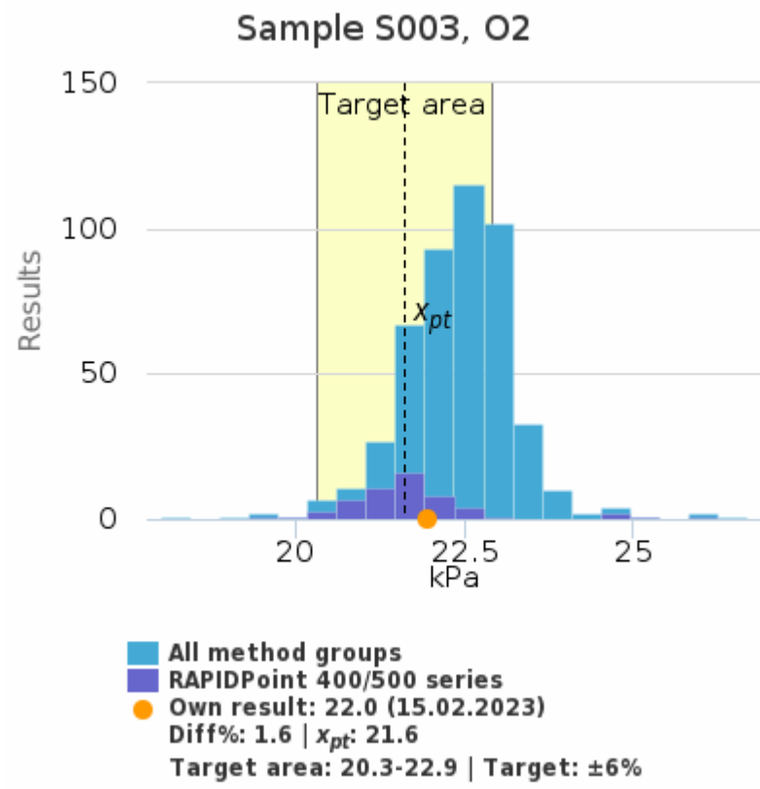


Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	3.1	3.3	8.1%	1.39
23/1	Sample S002	4.9	5.2	5.5%	1.43
23/1	Sample S001	7.1	7.1	-0.1%	-0.02
22/4	Sample S003	4.1	4.1	-0.3%	-0.06
22/4	Sample S002	5.9	5.4	-8.6%	-1.74
22/4	Sample S001	8.3	7.9	-4.2%	-0.78
22/3	Sample S003	4.1	4.2	1.6%	0.33
22/3	Sample S002	5.9	5.7	-3.0%	-0.73
22/3	Sample S001	8.4	8.0	-5.0%	-0.78
22/2	Sample S003	3.0	3.3	10.0%	1.68
22/2	Sample S002	4.6	4.8	3.2%	0.64
22/2	Sample S001	6.9	7.0	0.7%	0.13

O2 |Lab



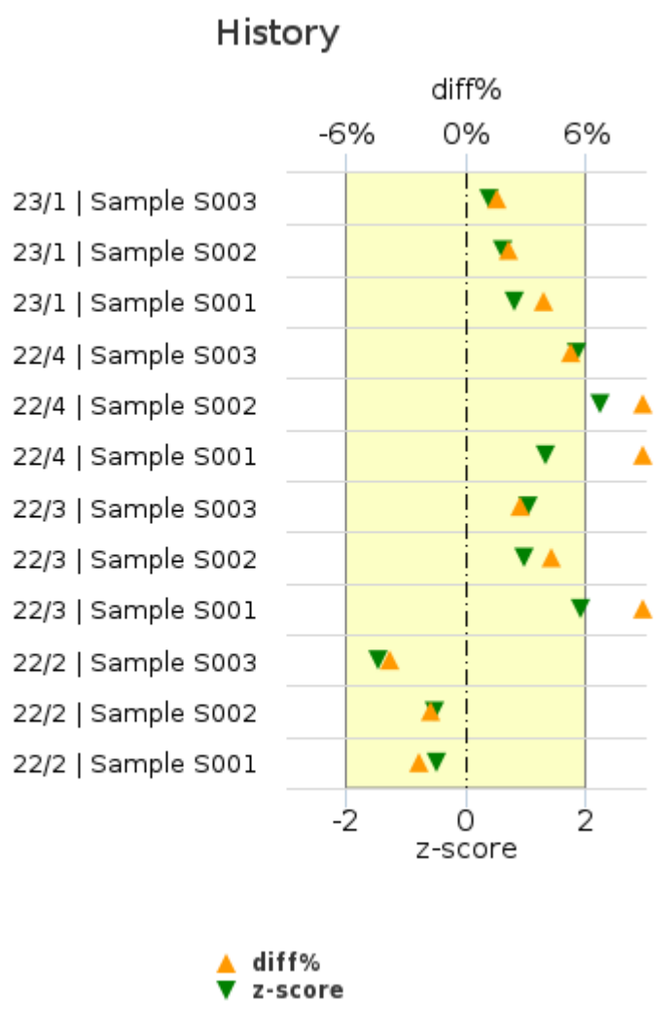




	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	12.4 kPa	0.6	<0.1	4.9	56
All methods	11.6 kPa	1.2	<0.1	10.4	479

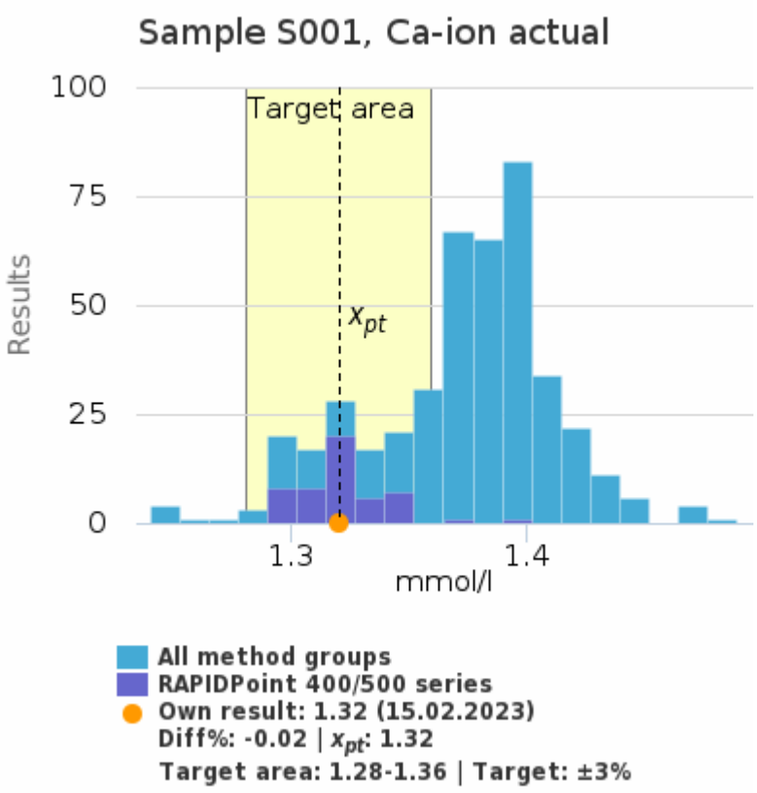
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	16.9 kPa	0.6	<0.1	3.4	56
All methods	17.1 kPa	0.6	<0.1	3.7	482

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	21.6 kPa	0.9	0.1	4.1	56
All methods	22.4 kPa	0.7	<0.1	3.3	480

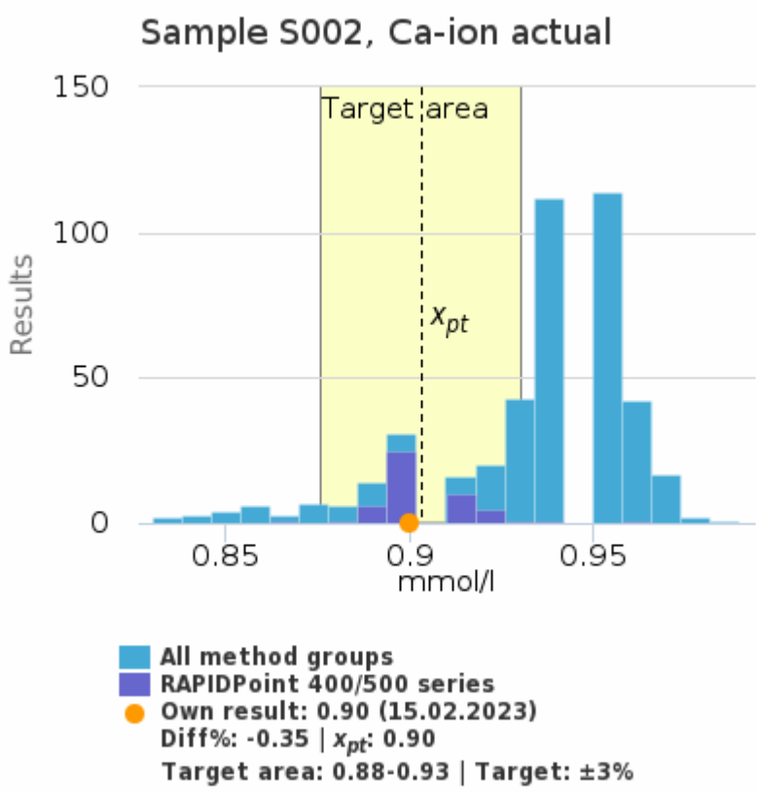


Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	21.6	22.0	1.6%	0.39
23/1	Sample S002	16.9	17.3	2.1%	0.62
23/1	Sample S001	12.4	12.9	3.9%	0.81
22/4	Sample S003	19.3	20.4	5.3%	1.84
22/4	Sample S002	14.6	16.1	10.6%	2.23
22/4	Sample S001	6.7	8.3	24.0%	1.34
22/3	Sample S003	19.5	20.1	2.7%	1.03
22/3	Sample S002	15.0	15.6	4.3%	0.96
22/3	Sample S001	7.0	8.8	25.1%	1.90
22/2	Sample S003	21.6	20.8	-3.8%	-1.47
22/2	Sample S002	16.8	16.5	-1.8%	-0.53
22/2	Sample S001	12.9	12.6	-2.3%	-0.48

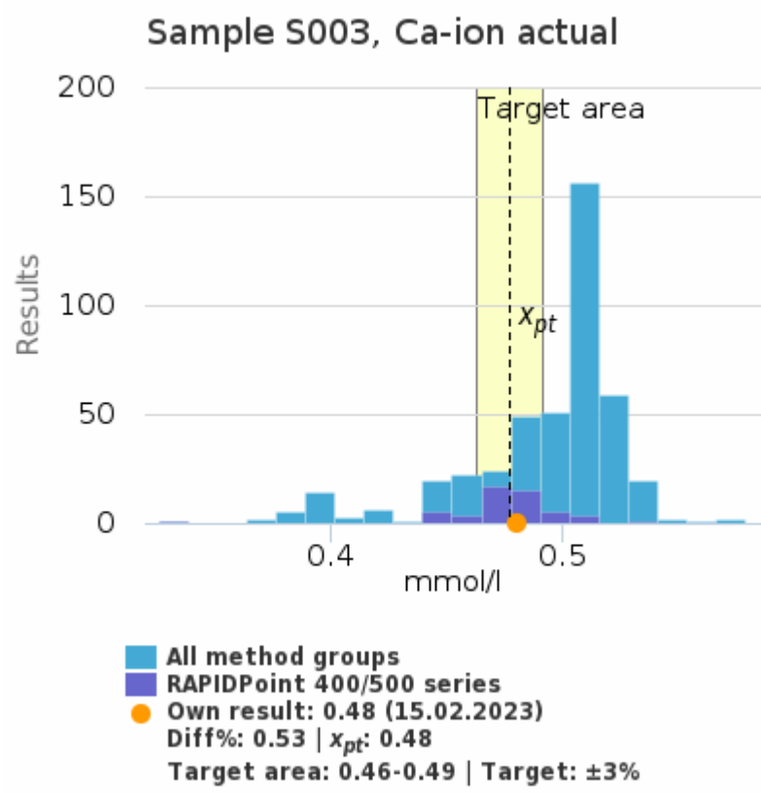
Ca-ion actual |Lab



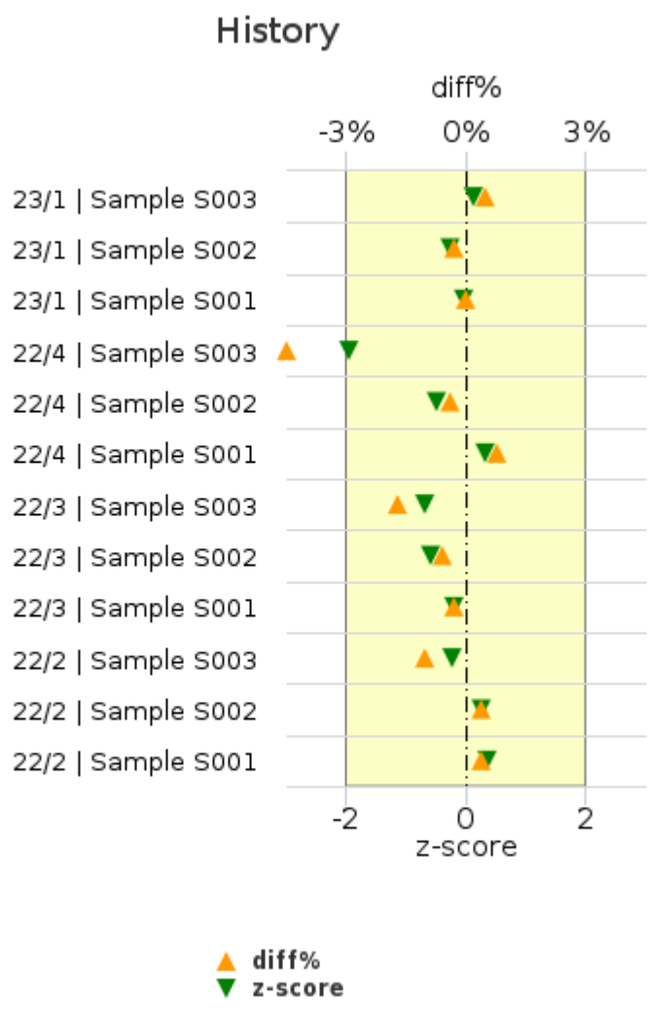
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	1.32 mmol/l	0.02	<0.01	1.2	51
All methods	1.37 mmol/l	0.04	<0.01	2.7	436



	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	0.90 mmol/l	0.01	<0.01	1.3	51
All methods	0.94 mmol/l	0.02	<0.01	2.6	443

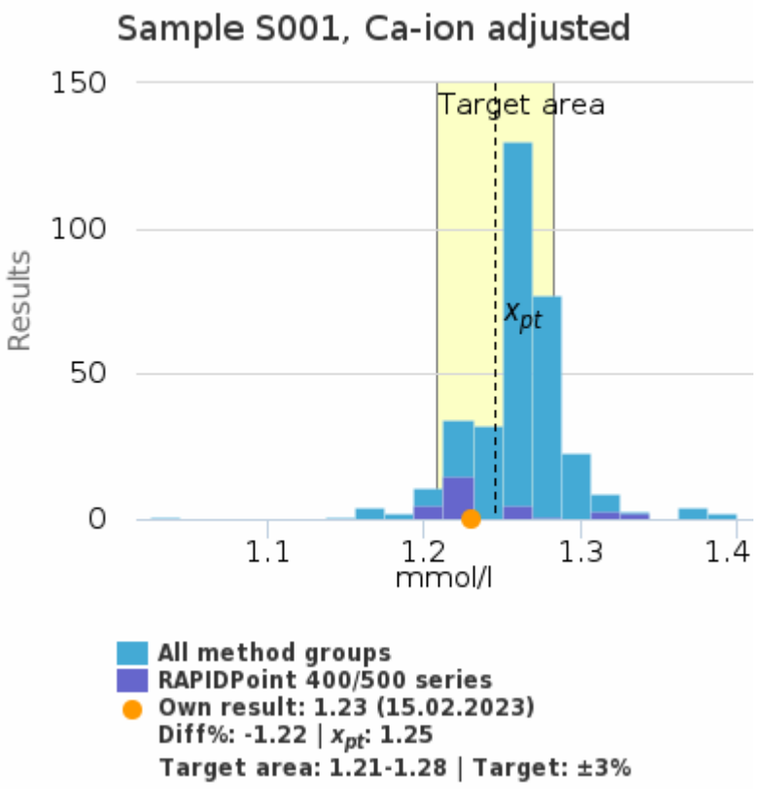


	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	0.48 mmol/l	0.02	<0.01	3.9	52
All methods	0.50 mmol/l	0.03	<0.01	5.2	438

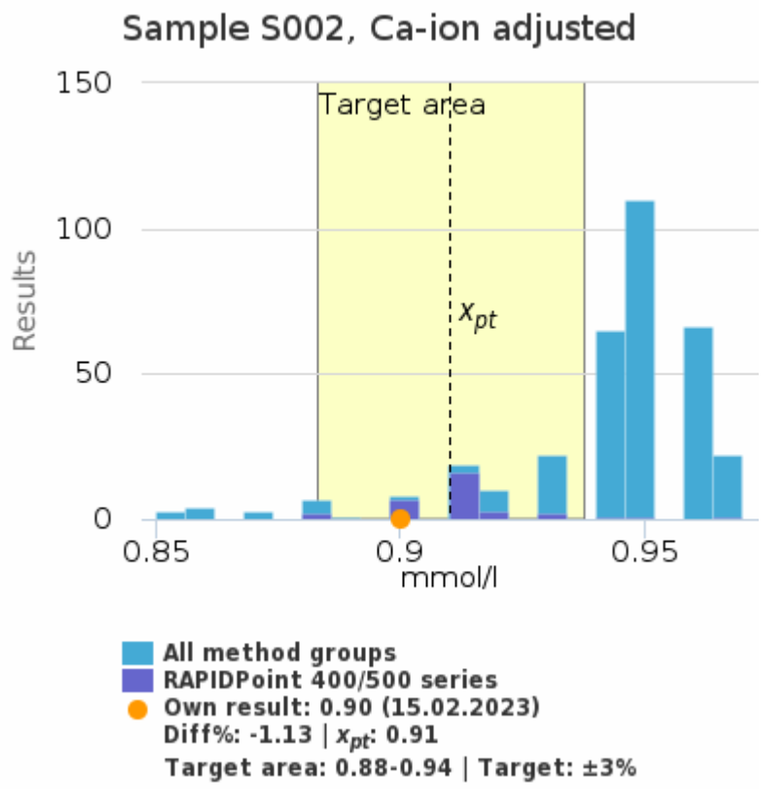


Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	0.48	0.48	0.53%	0.14
23/1	Sample S002	0.90	0.90	-0.35%	-0.26
23/1	Sample S001	1.32	1.32	-0.02%	-0.02
22/4	Sample S003	0.69	0.65	-5.38%	-1.96
22/4	Sample S002	1.11	1.11	-0.42%	-0.50
22/4	Sample S001	1.60	1.61	0.85%	0.33
22/3	Sample S003	0.68	0.67	-1.71%	-0.69
22/3	Sample S002	1.12	1.11	-0.62%	-0.60
22/3	Sample S001	1.60	1.60	-0.29%	-0.20
22/2	Sample S003	0.46	0.46	-0.98%	-0.22
22/2	Sample S002	0.91	0.91	0.41%	0.26
22/2	Sample S001	1.30	1.31	0.42%	0.36

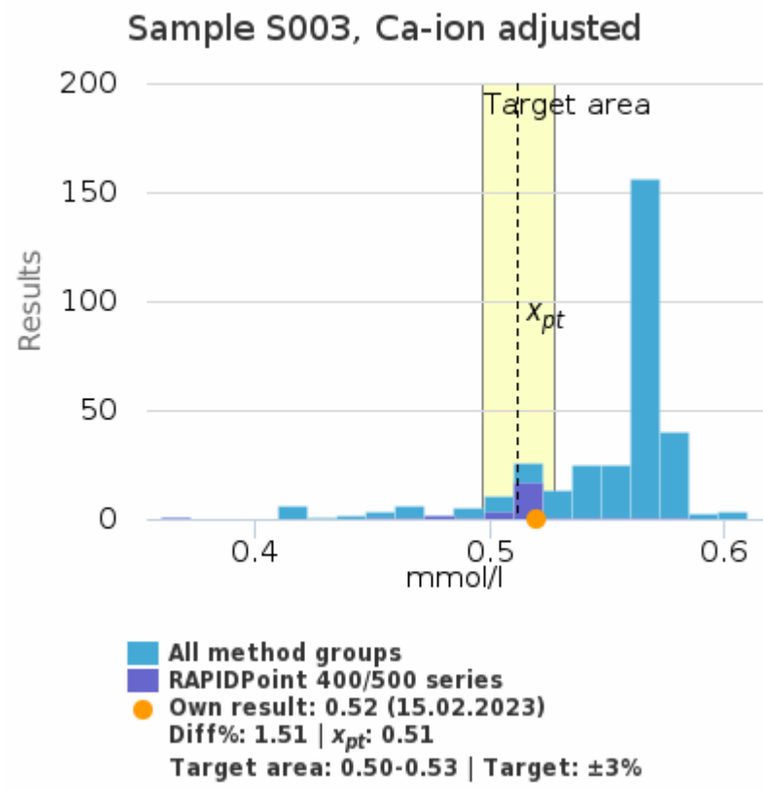
Ca-ion adjusted |Lab



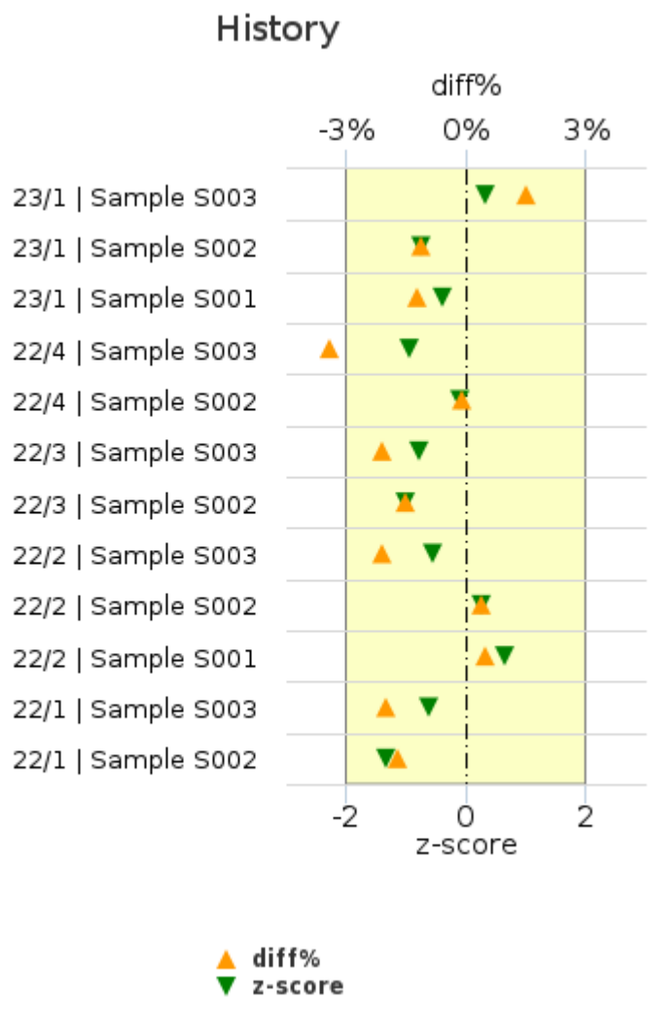
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	1.25 mmol/l	0.04	<0.01	3.1	31
All methods	1.26 mmol/l	0.03	<0.01	2.1	333



	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	0.91 mmol/l	0.01	<0.01	1.5	33
All methods	0.94 mmol/l	0.02	<0.01	2.0	340



	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	0.51 mmol/l	0.02	<0.01	4.9	32
All methods	0.55 mmol/l	0.03	<0.01	5.3	330



Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	0.51	0.52	1.51%	0.31
23/1	Sample S002	0.91	0.90	-1.13%	-0.74
23/1	Sample S001	1.25	1.23	-1.22%	-0.39
22/4	Sample S003	0.70	0.68	-3.37%	-0.93
22/4	Sample S002	1.09	1.09	-0.11%	-0.09
22/3	Sample S003	0.71	0.70	-2.08%	-0.78
22/3	Sample S002	1.10	1.08	-1.52%	-0.99
22/2	Sample S003	0.51	0.50	-2.14%	-0.54
22/2	Sample S002	0.92	0.92	0.36%	0.25
22/2	Sample S001	1.21	1.22	0.54%	0.66
22/1	Sample S003	0.50	0.49	-2.00%	-0.63
22/1	Sample S002	0.92	0.90	-1.73%	-1.34

K |Lab

All method groups
RAPIDPoint 400/500 series
Own result: 2.5 (15.02.2023)
Diff%: 2.0 | x_{pt}: 2.5
Target area: 2.4-2.6 | Target: ±4%

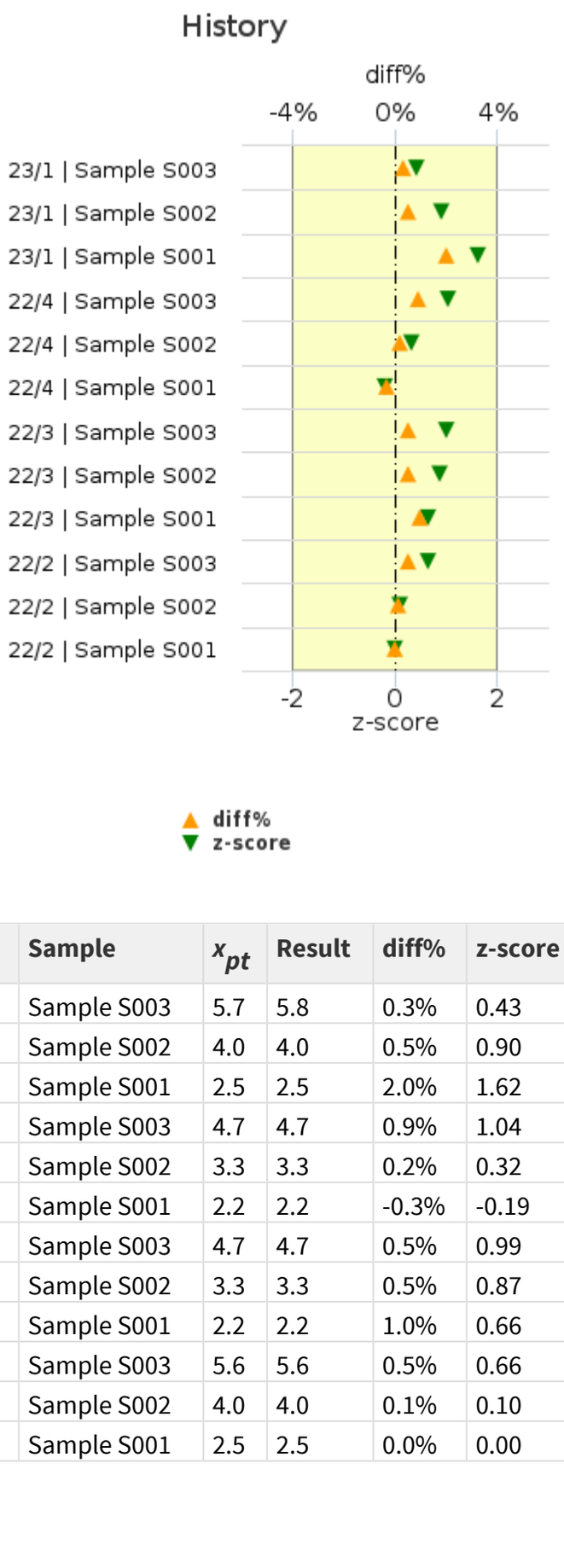
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	2.5 mmol/l	<0.1	<0.1	1.2	55
All methods	2.5 mmol/l	<0.1	<0.1	3.2	459

All method groups
RAPIDPoint 400/500 series
Own result: 4.0 (15.02.2023)
Diff%: 0.5 | x_{pt}: 4.0
Target area: 3.9-4.2 | Target: ±4%

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	4.0 mmol/l	<0.1	<0.1	0.6	55
All methods	4.1 mmol/l	<0.1	<0.1	1.6	466

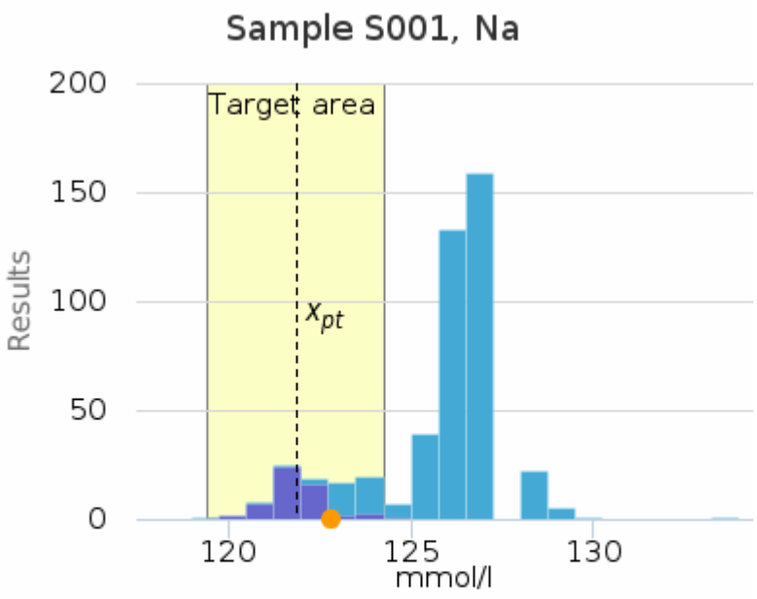
All method groups
RAPIDPoint 400/500 series
Own result: 5.8 (15.02.2023)
Diff%: 0.3 | x_{pt}: 5.7
Target area: 5.5-6.0 | Target: ±4%

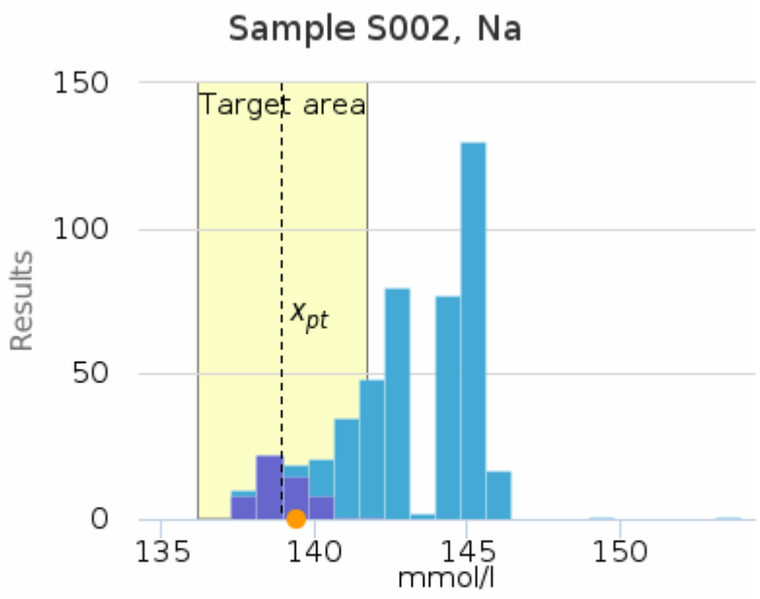
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	5.7 mmol/l	<0.1	<0.1	0.7	56
All methods	5.8 mmol/l	<0.1	<0.1	1.2	469

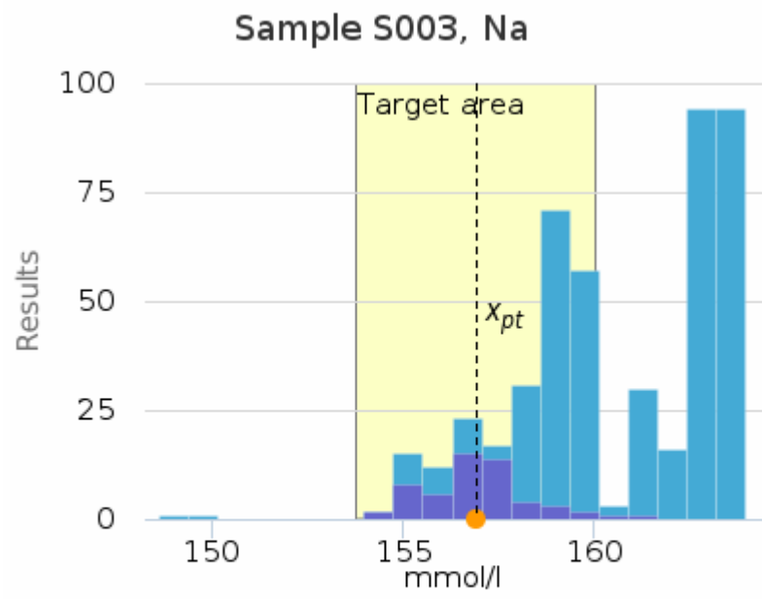


Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	5.7	5.8	0.3%	0.43
23/1	Sample S002	4.0	4.0	0.5%	0.90
23/1	Sample S001	2.5	2.5	2.0%	1.62
22/4	Sample S003	4.7	4.7	0.9%	1.04
22/4	Sample S002	3.3	3.3	0.2%	0.32
22/4	Sample S001	2.2	2.2	-0.3%	-0.19
22/3	Sample S003	4.7	4.7	0.5%	0.99
22/3	Sample S002	3.3	3.3	0.5%	0.87
22/3	Sample S001	2.2	2.2	1.0%	0.66
22/2	Sample S003	5.6	5.6	0.5%	0.66
22/2	Sample S002	4.0	4.0	0.1%	0.10
22/2	Sample S001	2.5	2.5	0.0%	0.00

Na |Lab







All method groups
RAPIDPoint 400/500 series
Own result: 123 (15.02.2023)
Diff%: 1 | x_{pt}: 122
Target area: 119-124 | Target: ±2%

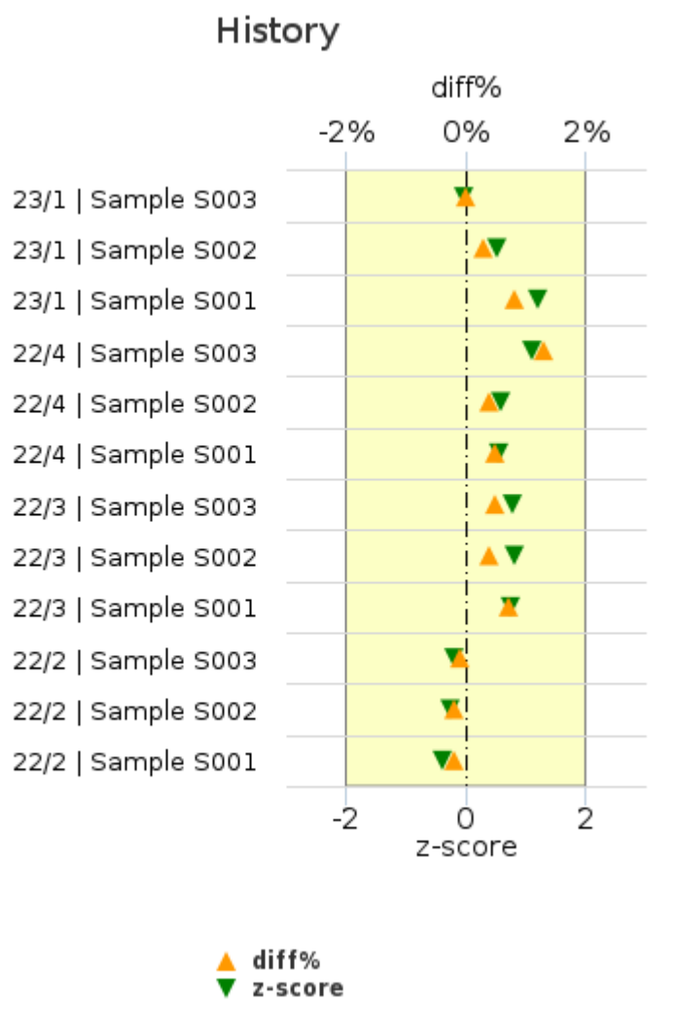
All method groups
RAPIDPoint 400/500 series
Own result: 139 (15.02.2023)
Diff%: 0 | x_{pt}: 139
Target area: 136-142 | Target: ±2%

All method groups
RAPIDPoint 400/500 series
Own result: 157 (15.02.2023)
Diff%: 0 | x_{pt}: 157
Target area: 154-160 | Target: ±2%

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	122 mmol/l	<1	<1	0.6	55
All methods	126 mmol/l	2	<1	1.5	459

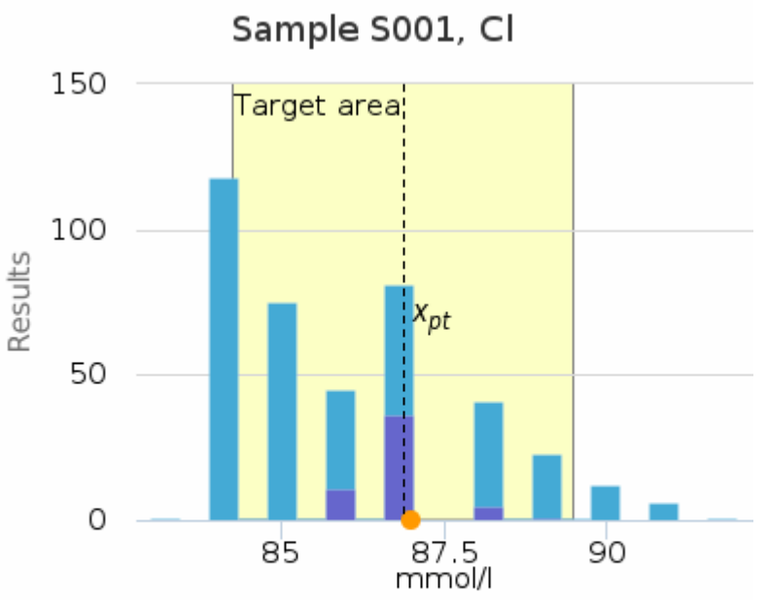
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	139 mmol/l	<1	<1	0.6	55
All methods	143 mmol/l	2	<1	1.5	463

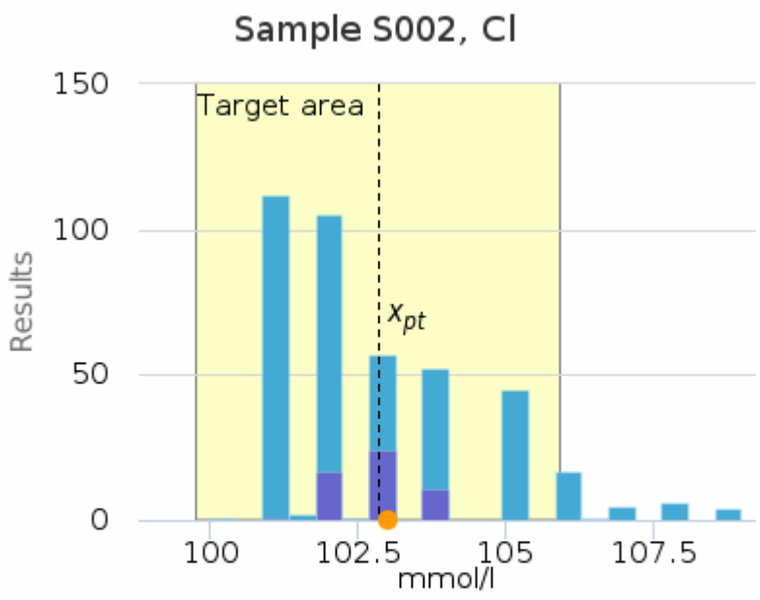
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	157 mmol/l	1	<1	0.8	56
All methods	161 mmol/l	3	<1	1.7	467

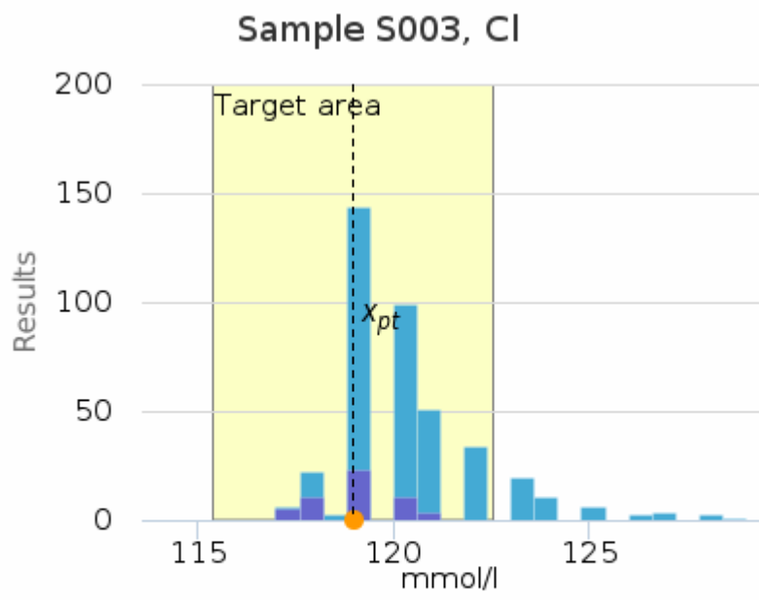


Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	157	157	0%	-0.02
23/1	Sample S002	139	139	0%	0.52
23/1	Sample S001	122	123	1%	1.21
22/4	Sample S003	147	149	1%	1.11
22/4	Sample S002	130	131	0%	0.59
22/4	Sample S001	114	115	1%	0.54
22/3	Sample S003	147	148	1%	0.79
22/3	Sample S002	130	131	0%	0.80
22/3	Sample S001	114	114	1%	0.76
22/2	Sample S003	156	156	0%	-0.19
22/2	Sample S002	139	139	0%	-0.26
22/2	Sample S001	122	122	0%	-0.40

Cl |Lab



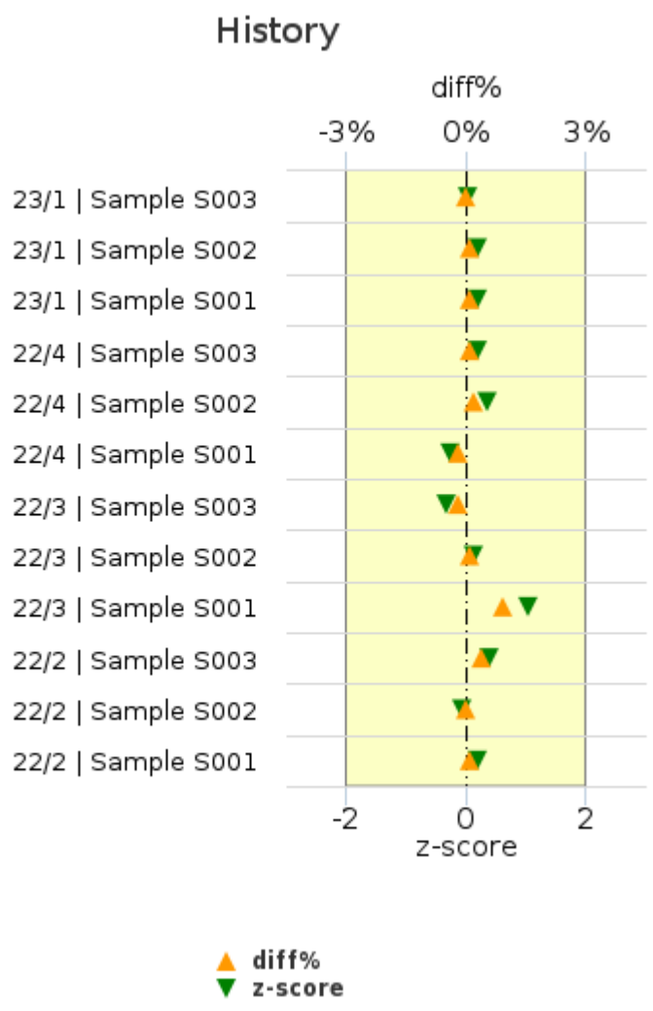




	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	87 mmol/l	<1	<1	0.6	53
All methods	86 mmol/l	2	<1	2.1	408

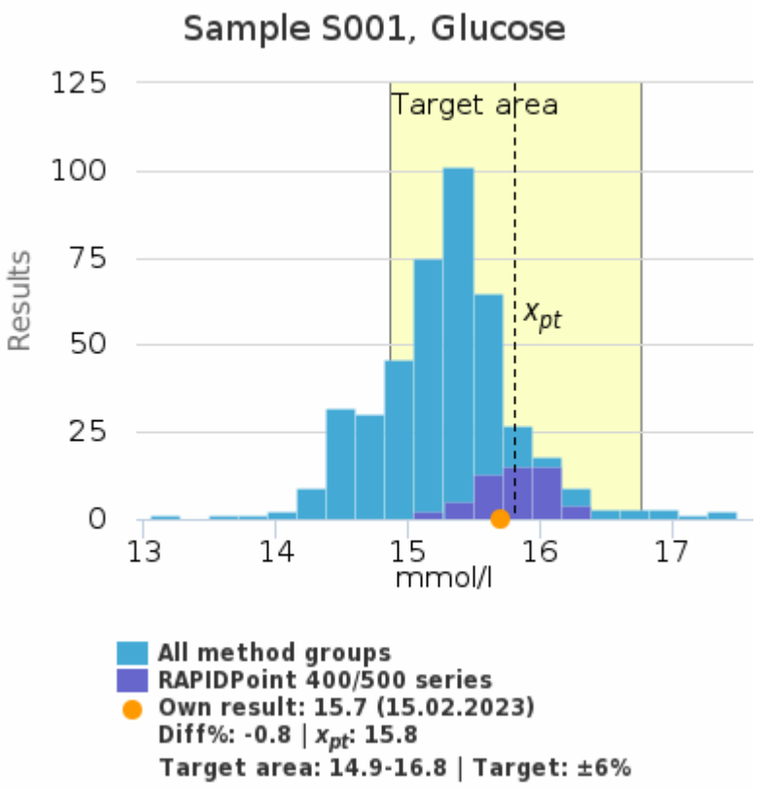
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	103 mmol/l	<1	<1	0.7	53
All methods	103 mmol/l	2	<1	1.5	408

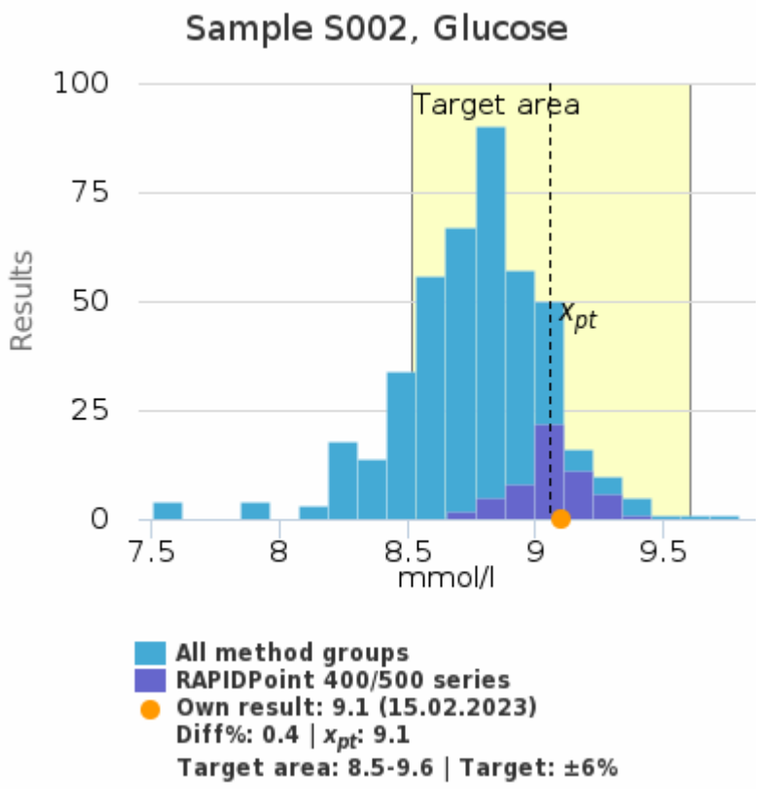
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	119 mmol/l	1	<1	0.9	54
All methods	120 mmol/l	2	<1	1.3	407

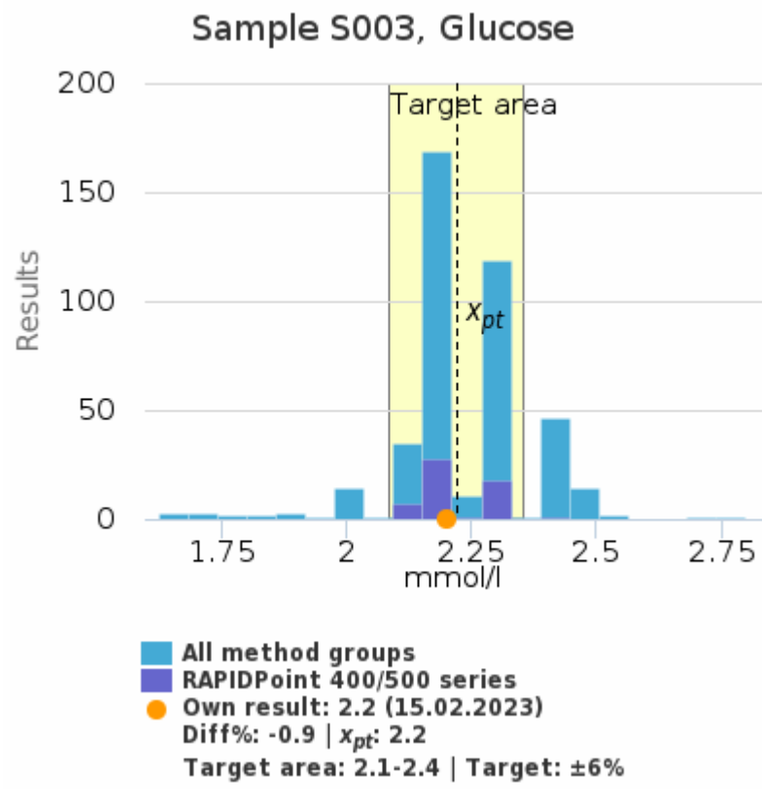


Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	119	119	0%	0.04
23/1	Sample S002	103	103	0%	0.20
23/1	Sample S001	87	87	0%	0.21
22/4	Sample S003	111	111	0%	0.18
22/4	Sample S002	95	95	0%	0.35
22/4	Sample S001	78	78	0%	-0.26
22/3	Sample S003	111	111	0%	-0.31
22/3	Sample S002	95	95	0%	0.14
22/3	Sample S001	78	79	1%	1.03
22/2	Sample S003	118	118	0%	0.40
22/2	Sample S002	102	102	0%	-0.08
22/2	Sample S001	86	86	0%	0.20

Glucose |Lab



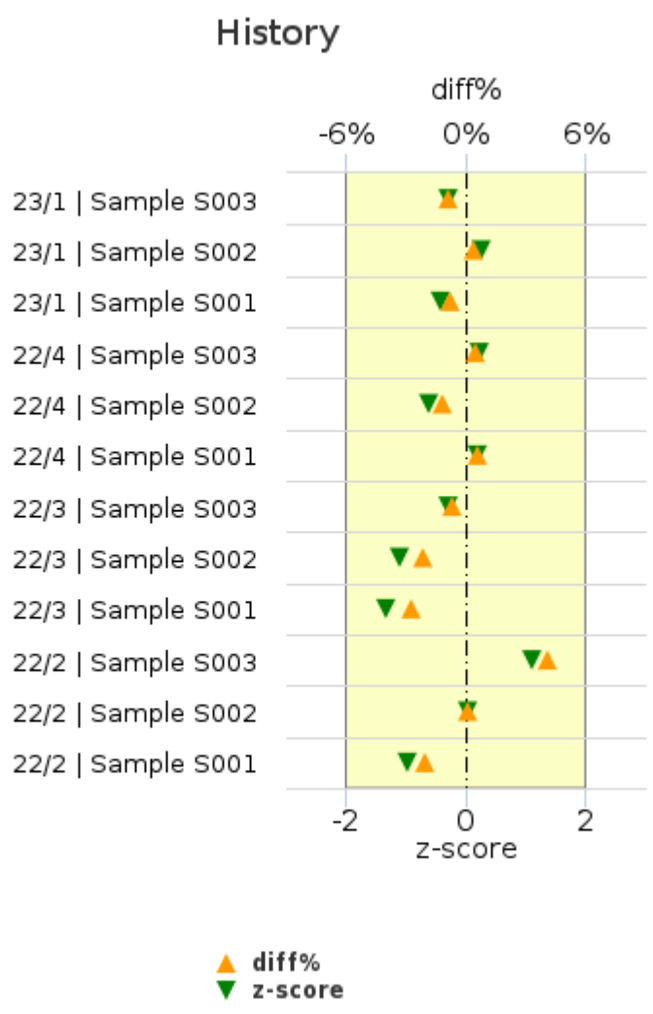




	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	15.8 mmol/l	0.3	<0.1	1.8	54
All methods	15.3 mmol/l	0.5	<0.1	3.1	429

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	9.1 mmol/l	0.2	<0.1	1.8	55
All methods	8.8 mmol/l	0.3	<0.1	2.9	431

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	2.2 mmol/l	<0.1	<0.1	3.2	55
All methods	2.2 mmol/l	0.1	<0.1	5.2	428



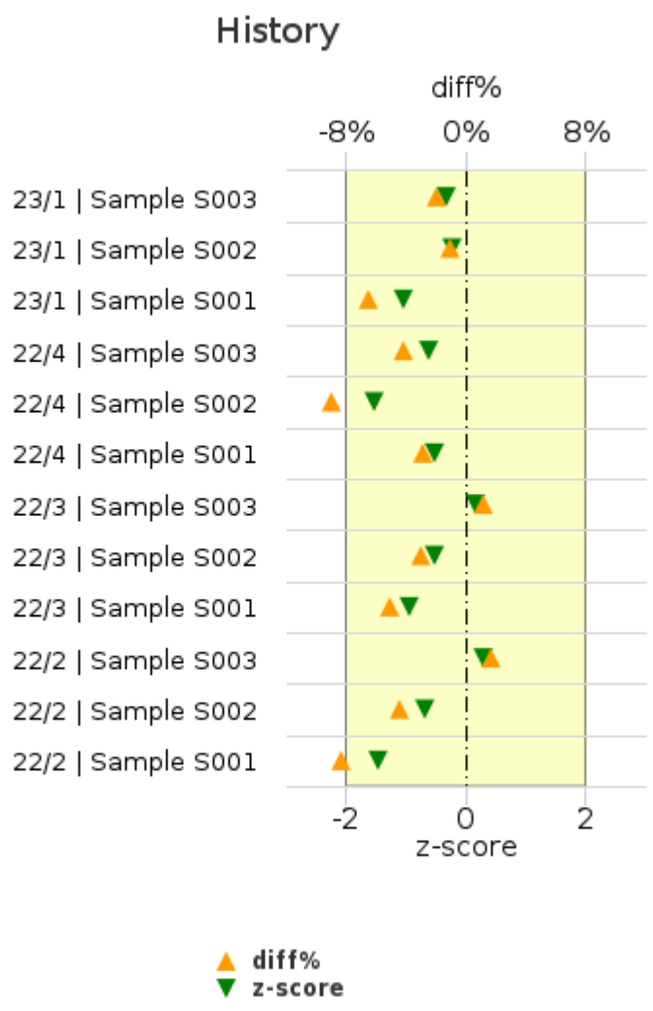
Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	2.2	2.2	-0.9%	-0.29
23/1	Sample S002	9.1	9.1	0.4%	0.25
23/1	Sample S001	15.8	15.7	-0.8%	-0.42
22/4	Sample S003	5.7	5.7	0.5%	0.23
22/4	Sample S002	12.4	12.3	-1.2%	-0.62
22/4	Sample S001	22.6	22.7	0.6%	0.20
22/3	Sample S003	5.6	5.6	-0.7%	-0.29
22/3	Sample S002	12.5	12.2	-2.1%	-1.09
22/3	Sample S001	22.6	22.0	-2.7%	-1.32
22/2	Sample S003	2.2	2.3	4.1%	1.11
22/2	Sample S002	9.0	9.0	0.1%	0.04
22/2	Sample S001	15.9	15.6	-2.0%	-0.96

Lactate |Lab

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	13.0 mmol/l	0.8	0.1	6.3	53
All methods	13.2 mmol/l	0.9	<0.1	6.9	417

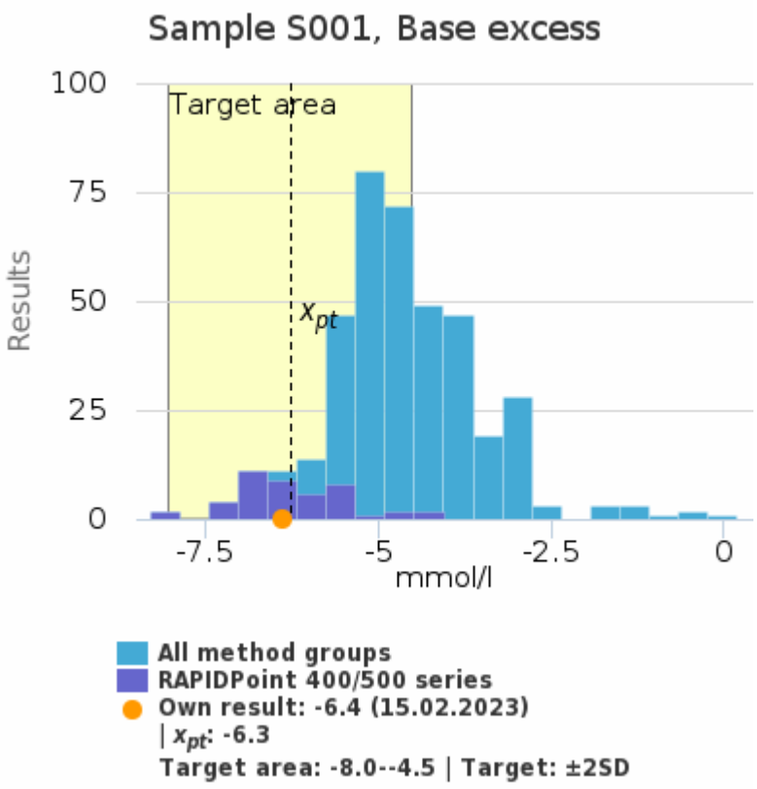
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	6.8 mmol/l	0.3	<0.1	4.0	54
All methods	7.1 mmol/l	0.3	<0.1	4.8	423

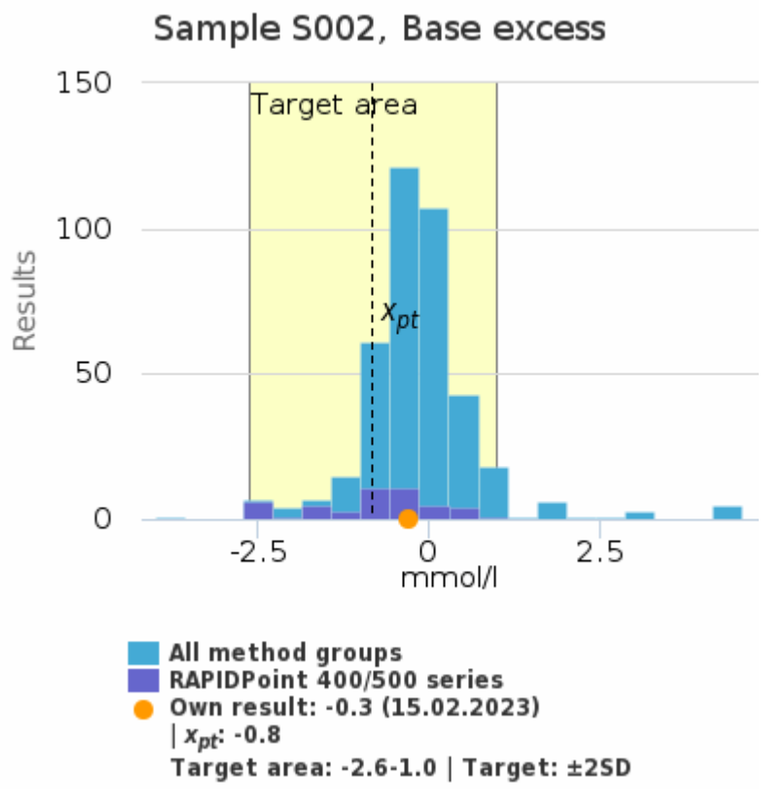
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	1.3 mmol/l	<0.1	<0.1	6.1	54
All methods	1.2 mmol/l	<0.1	<0.1	5.4	422

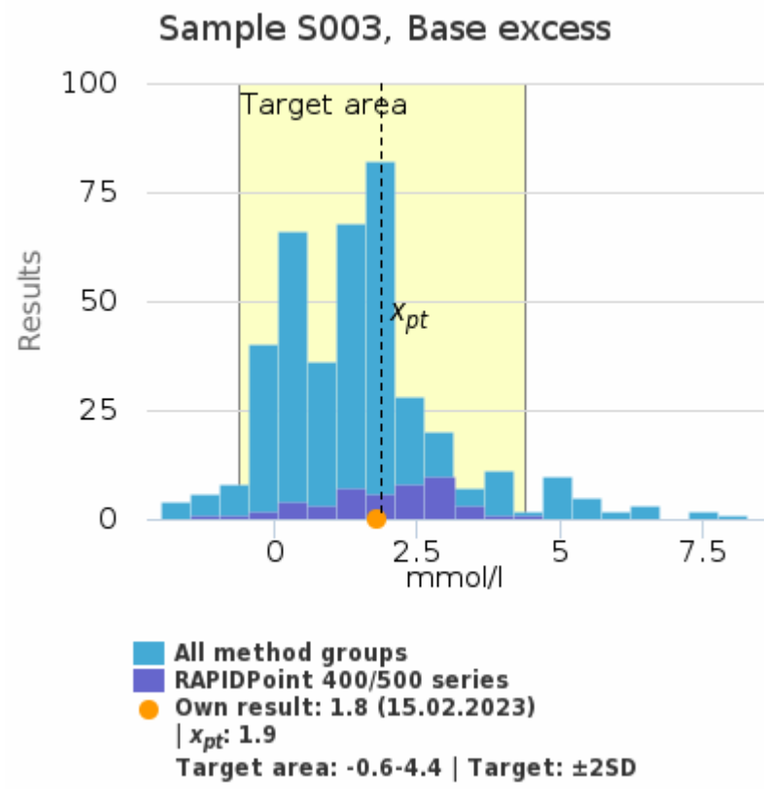


Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	1.3	1.2	-1.9%	-0.31
23/1	Sample S002	6.8	6.7	-1.0%	-0.24
23/1	Sample S001	13.0	12.2	-6.5%	-1.04
22/4	Sample S003	1.5	1.4	-4.2%	-0.63
22/4	Sample S002	4.0	3.6	-9.0%	-1.53
22/4	Sample S001	6.2	6.0	-2.8%	-0.52
22/3	Sample S003	1.4	1.5	1.2%	0.16
22/3	Sample S002	3.9	3.8	-3.0%	-0.52
22/3	Sample S001	6.2	5.9	-5.1%	-0.94
22/2	Sample S003	1.2	1.2	1.7%	0.28
22/2	Sample S002	6.5	6.2	-4.4%	-0.68
22/2	Sample S001	12.6	11.5	-8.3%	-1.46

Base excess |Lab





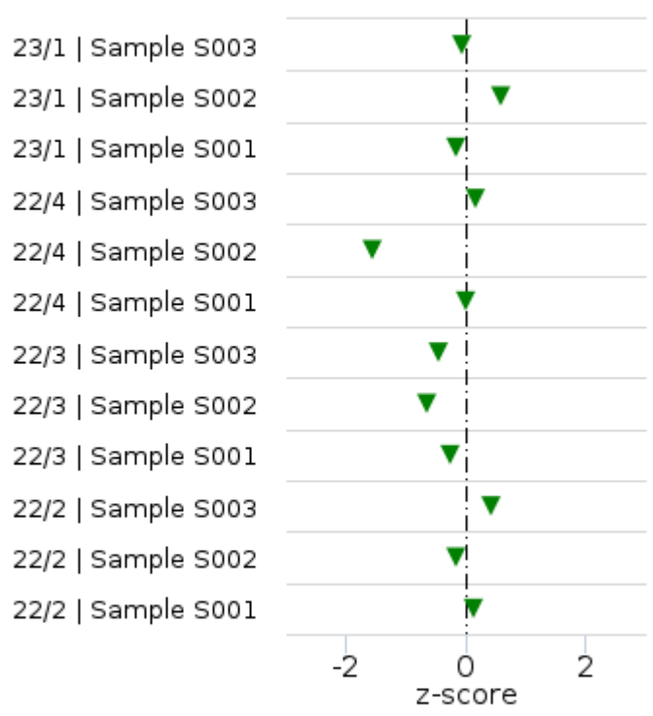


	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	-6.3 mmol/l	0.9	0.1	14.1	45
All methods	-4.7 mmol/l	1.0	<0.1	21.2	397

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	-0.8 mmol/l	0.9	0.1	111.7	47
All methods	-0.2 mmol/l	0.7	<0.1	319.6	401

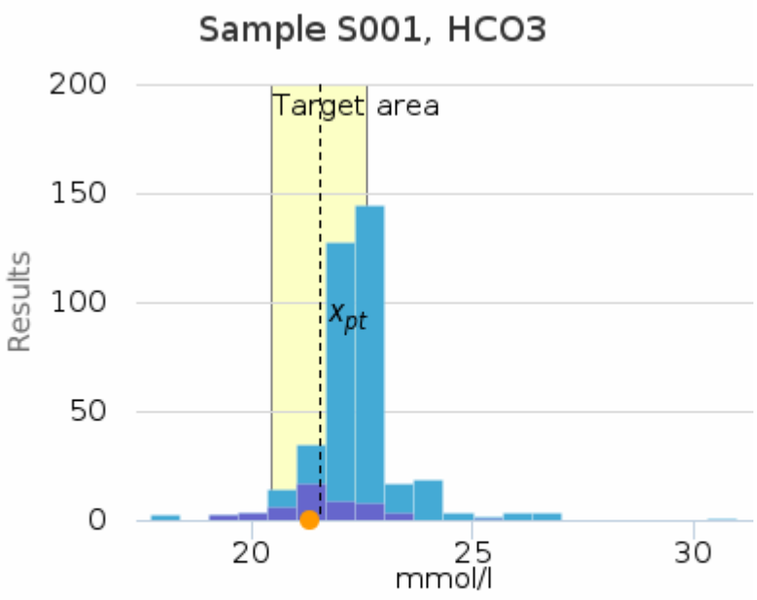
	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	1.9 mmol/l	1.2	0.2	66.4	47
All methods	1.4 mmol/l	1.4	<0.1	98.7	401

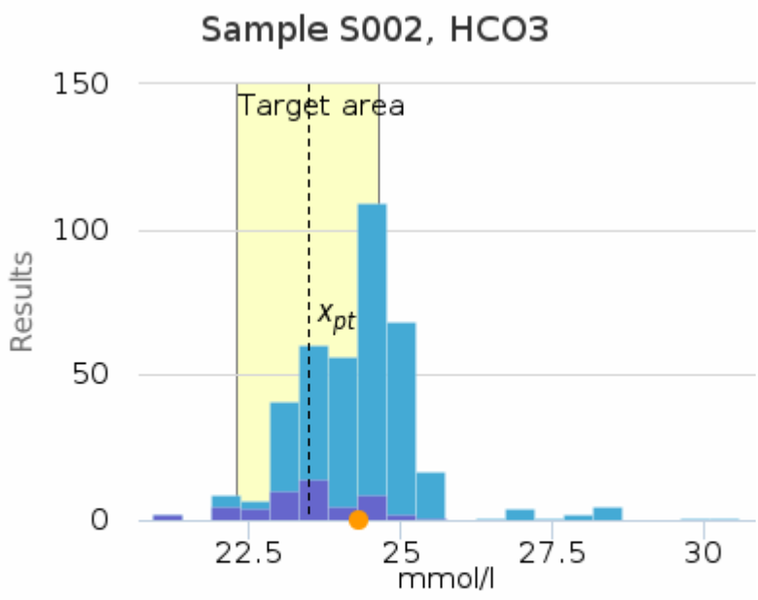
History

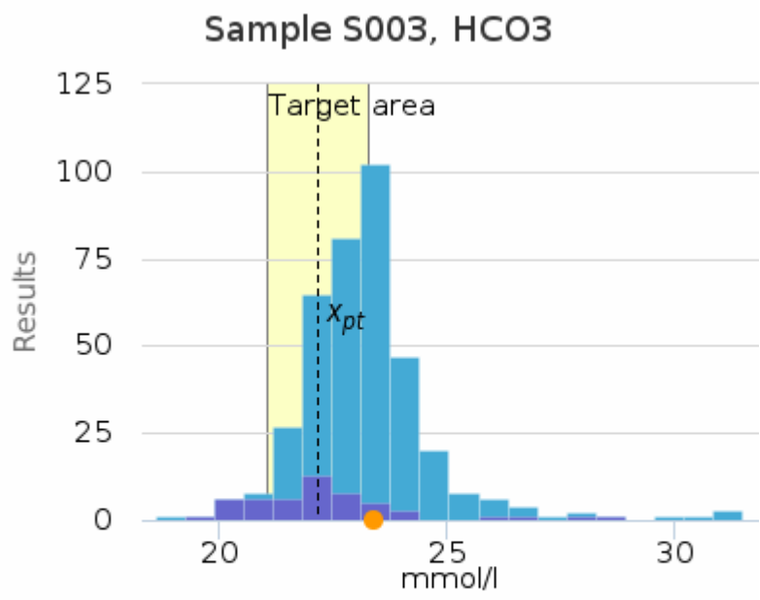


Round	Sample	x_{pt}	Result	z-score
23/1	Sample S003	1.9	1.8	-0.07
23/1	Sample S002	-0.8	-0.3	0.57
23/1	Sample S001	-6.3	-6.4	-0.15
22/4	Sample S003	1.5	1.7	0.16
22/4	Sample S002	-2.3	-3.8	-1.56
22/4	Sample S001	-8.9	-8.9	-0.01
22/3	Sample S003	1.5	1.1	-0.47
22/3	Sample S002	-2.3	-2.9	-0.66
22/3	Sample S001	-8.6	-9.0	-0.26
22/2	Sample S003	0.7	1.4	0.43
22/2	Sample S002	-1.8	-1.9	-0.17
22/2	Sample S001	-6.7	-6.6	0.14

HCO3 |Lab



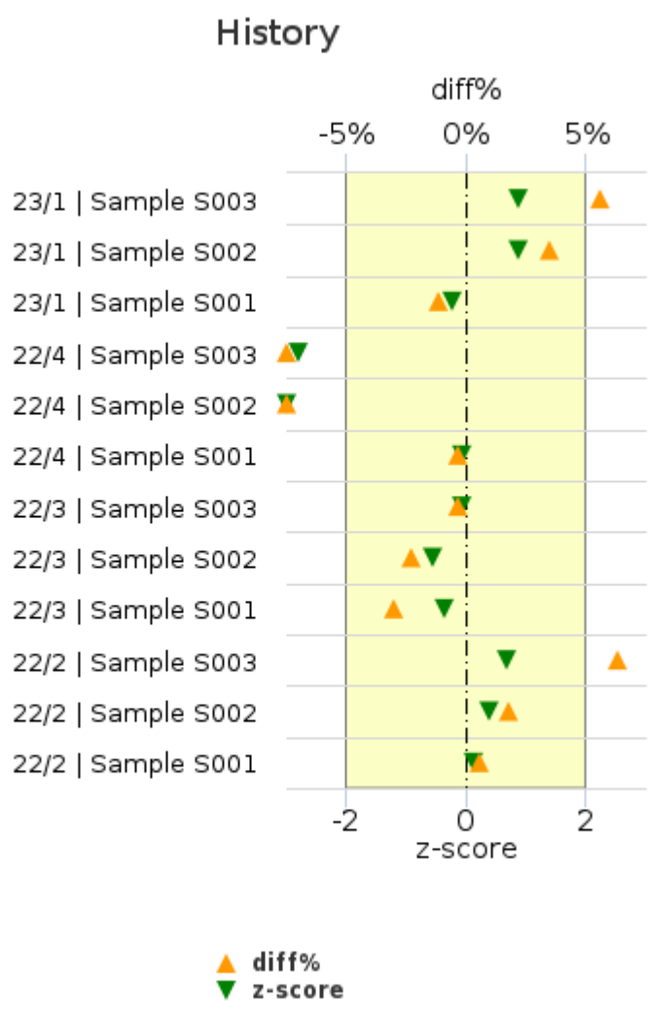




	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	21.5 mmol/l	1.1	0.1	4.9	52
All methods	22.3 mmol/l	0.8	<0.1	3.7	383

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	23.5 mmol/l	0.9	0.1	4.0	52
All methods	24.2 mmol/l	0.8	<0.1	3.5	384

	x_{pt}	sd	SEM	CV%	n
RAPIDPoint 400/500 series	22.2 mmol/l	1.4	0.2	6.5	52
All methods	23.1 mmol/l	1.2	<0.1	5.0	385



Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S003	22.2	23.4	5.6%	0.86
23/1	Sample S002	23.5	24.3	3.5%	0.89
23/1	Sample S001	21.5	21.3	-1.1%	-0.23
22/4	Sample S003	23.9	20.3	-15.0%	-2.78
22/4	Sample S002	23.5	19.3	-17.8%	-4.02
22/4	Sample S001	20.8	20.7	-0.3%	-0.05
22/3	Sample S003	24.3	24.2	-0.3%	-0.05
22/3	Sample S002	23.3	22.8	-2.3%	-0.54
22/3	Sample S001	20.6	20.0	-3.0%	-0.36
22/2	Sample S003	21.8	23.2	6.3%	0.69
22/2	Sample S002	22.2	22.6	1.8%	0.38
22/2	Sample S001	20.9	21.0	0.6%	0.13

Report info

Participants

200 participants from 12 countries.

Report info

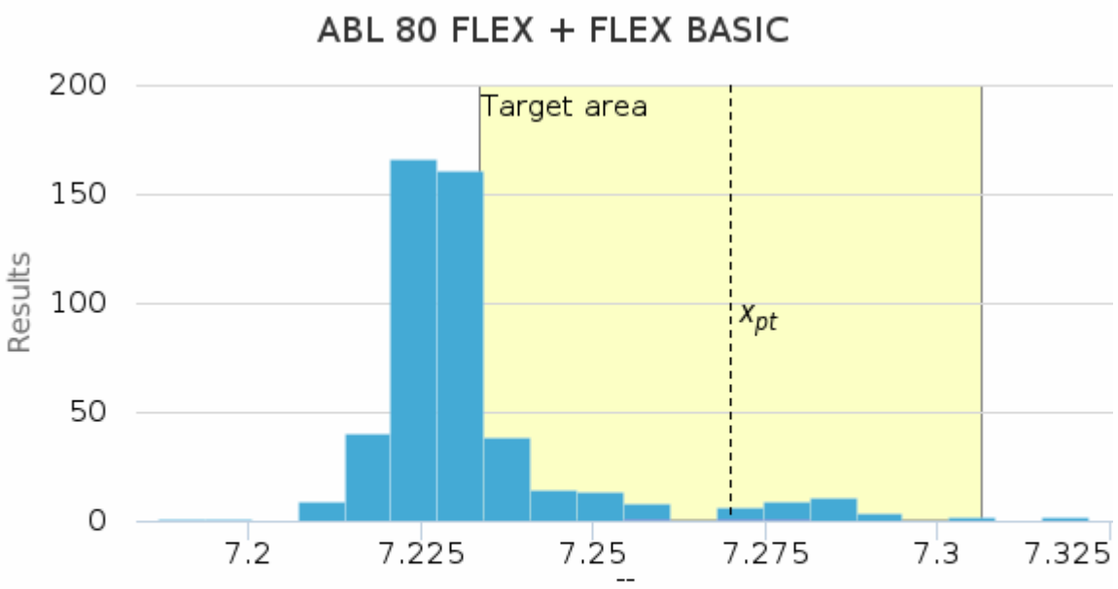
Your own result should be compared to others using the same method.
Assigned values (x_{pt}, target values) are means of the results where results deviating more than +/- 3*standard deviation from the median are removed. The standard uncertainty (u) of the assigned value is reported as standard error of the mean (SEM). Additionally, if the measurement uncertainty of the target value is large an automatic text is printed on the report: "The uncertainty of the assigned value is not negligible, and evaluations could be affected."
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.

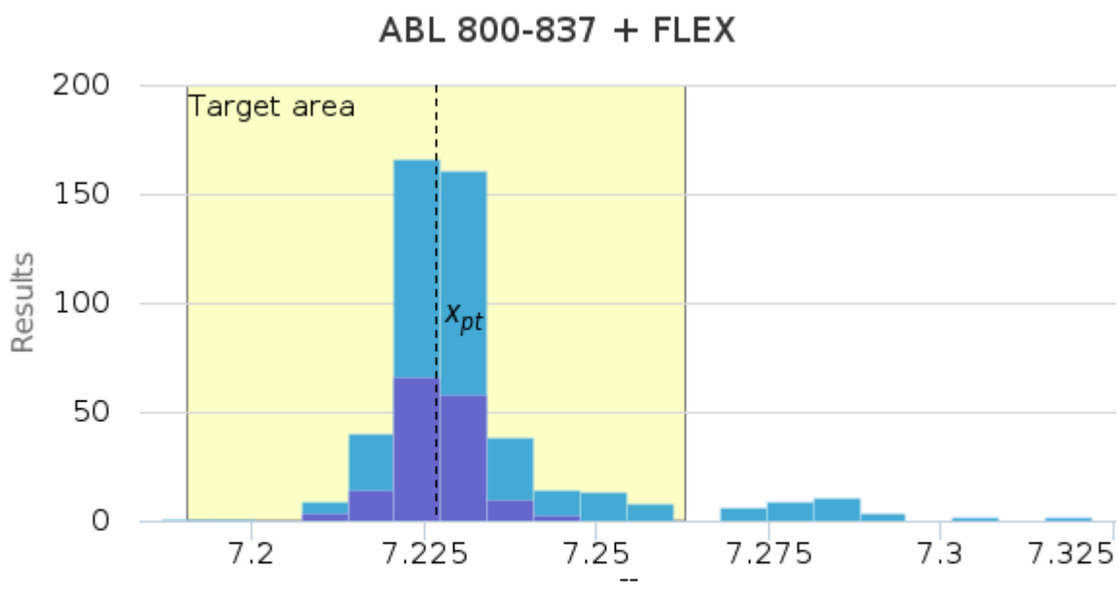
For information on report interpretation and performance evaluation, please see the " EQAS Interpretation guidelines" LabScala User instructions (top right corner ?Help link).

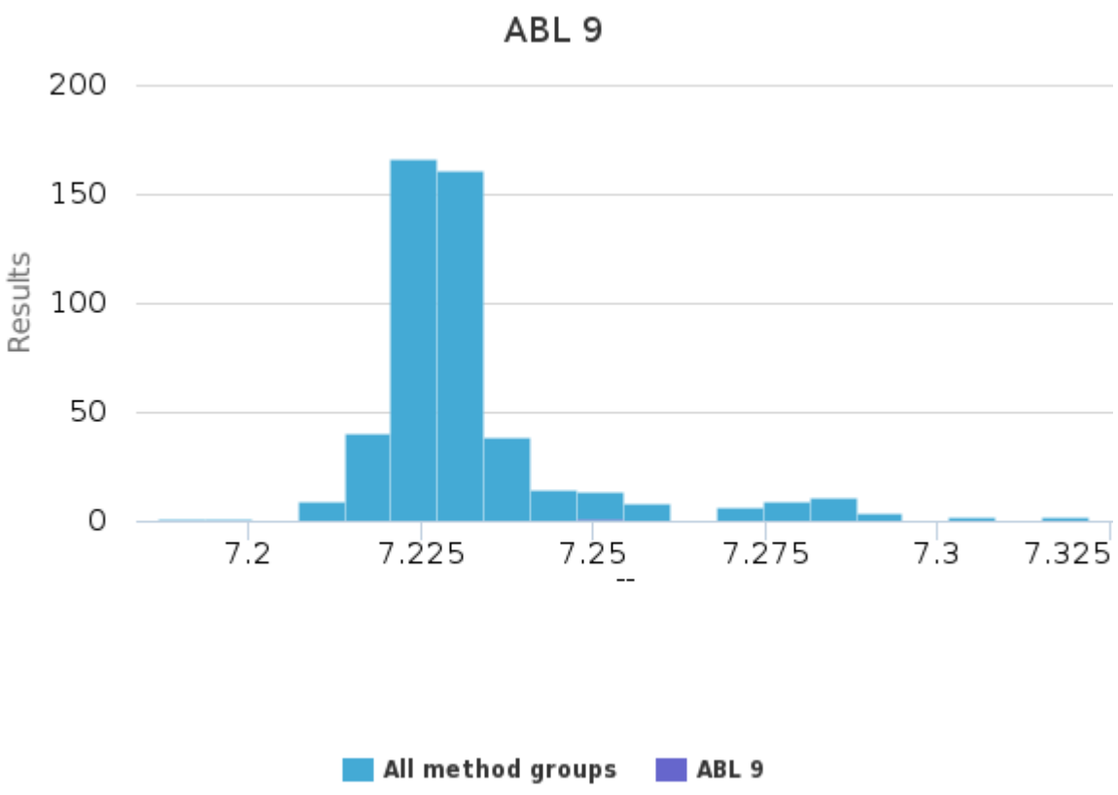
Sample S001 | pH, --

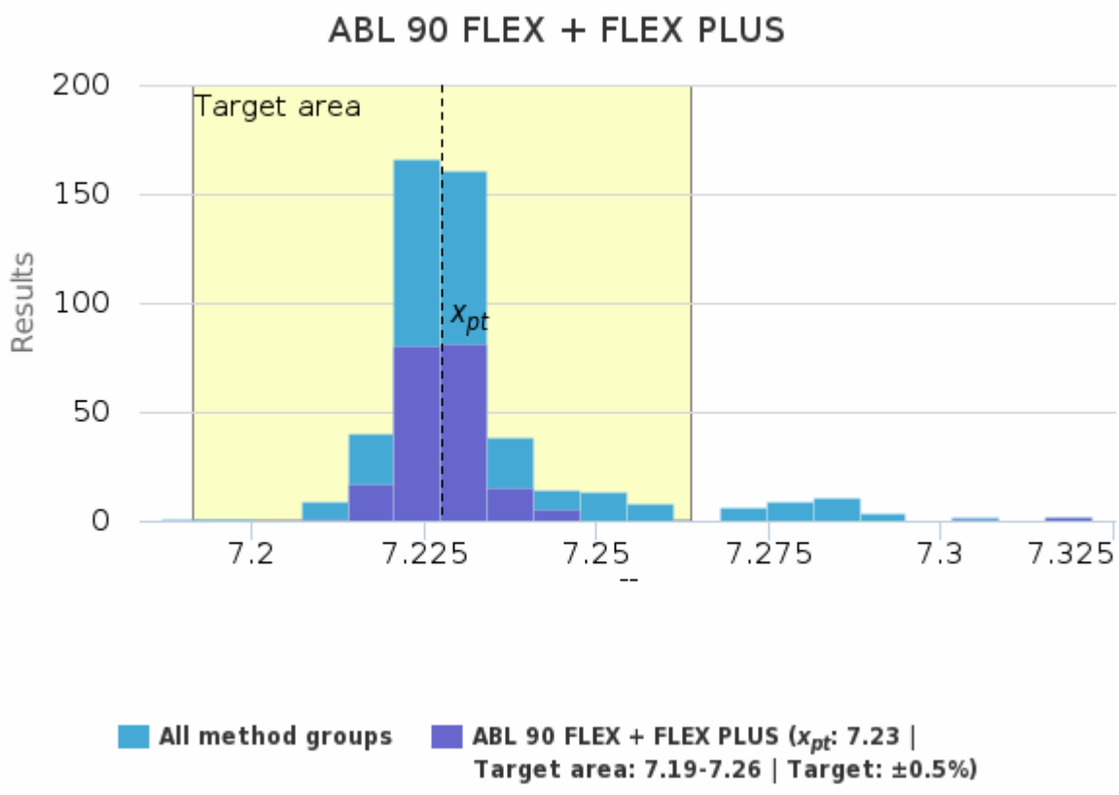
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	7.27	7.27	0.01	0.1	<0.01	7.26	7.28	-	3
ABL 800-837 + FLEX	7.23	7.23	<0.01	<0.1	<0.01	7.21	7.24	-	155
ABL 9	-	-	-	-	-	7.25	7.25	-	1
ABL 90 FLEX + FLEX PLUS	7.23	7.23	<0.01	<0.1	<0.01	7.21	7.25	3	202
Cobas b 221 / AVL 9180	7.24	7.24	<0.01	0.1	<0.01	7.23	7.25	-	7
epoc Blood Analysis System	7.22	7.22	0.02	0.2	<0.01	7.19	7.24	-	8
Gem Premier 3000-3500	7.25	7.25	<0.01	0.1	<0.01	7.24	7.27	-	11
Gem Premier 4000	7.25	7.25	<0.01	0.1	<0.01	7.24	7.26	-	4
Gem Premier 5000	7.25	7.25	0.02	0.2	<0.01	7.23	7.28	-	9
i-STAT	7.28	7.28	<0.01	<0.1	<0.01	7.27	7.29	-	17
i-STAT Alinity	7.29	7.29	<0.01	<0.1	<0.01	7.28	7.30	-	7
Nova 8	-	-	-	-	-	7.27	7.27	-	1
RAPIDLab 1200 series (RL1240-RL1265)	7.24	7.25	0.02	0.2	0.01	7.22	7.26	-	3
RAPIDLab 348/348EX	-	-	-	-	-	7.25	7.25	-	1
RAPIDPoint 400/500 series	7.23	7.23	<0.01	0.1	<0.01	7.21	7.25	1	56
All	**7.23**	**7.23**	**0.01**	**0.1**	**<0.01**	**7.19**	**7.28**	**27**	**485**

Sample S001 | pH, --| histogram summaries in LabScala

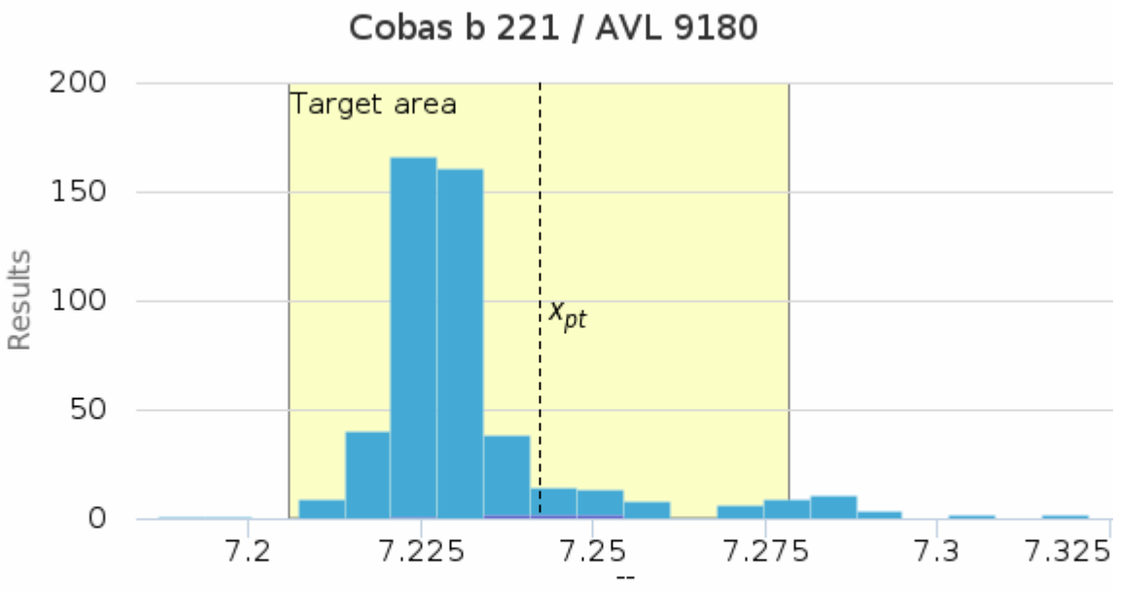


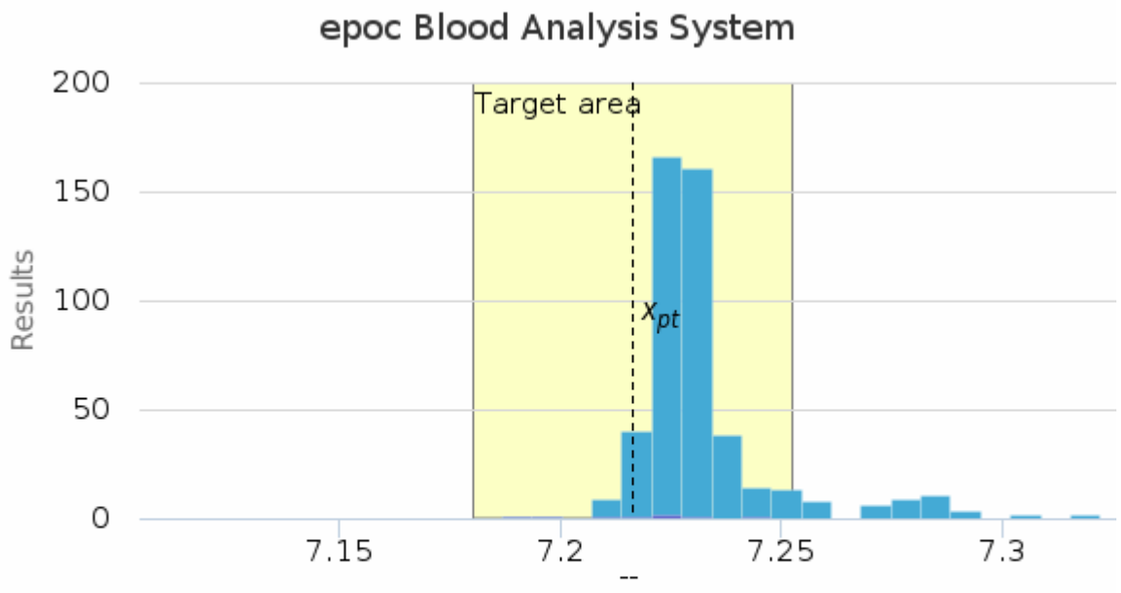


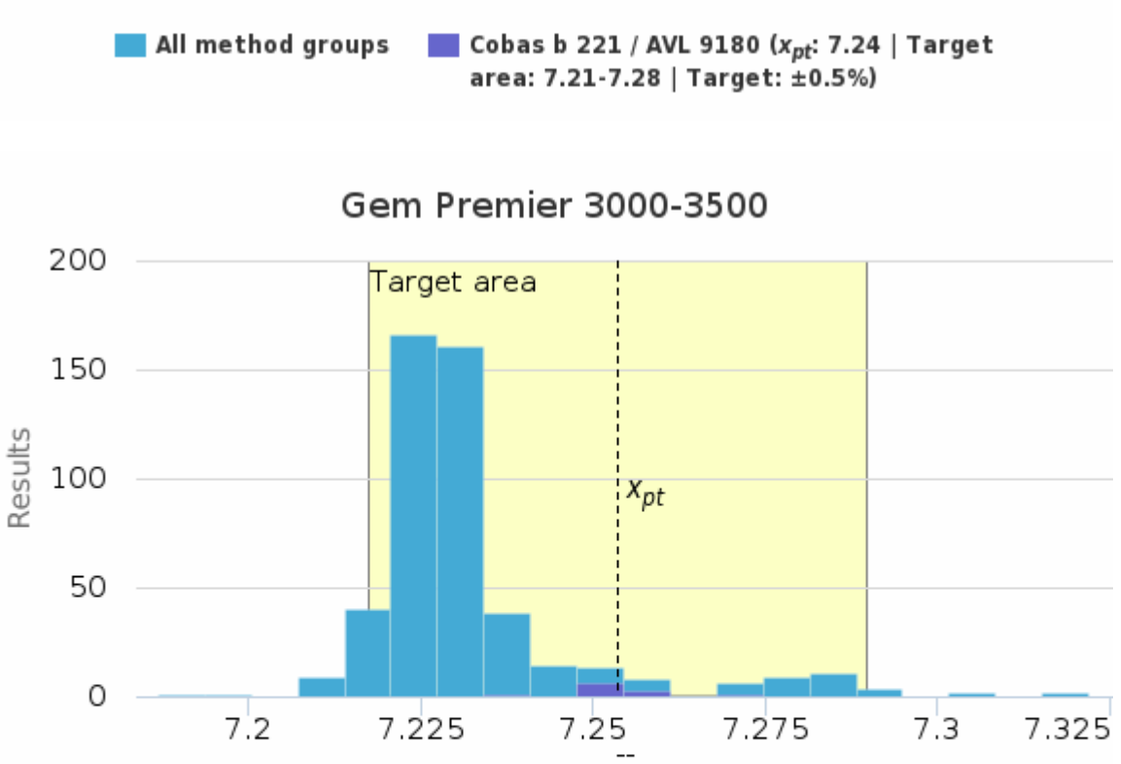


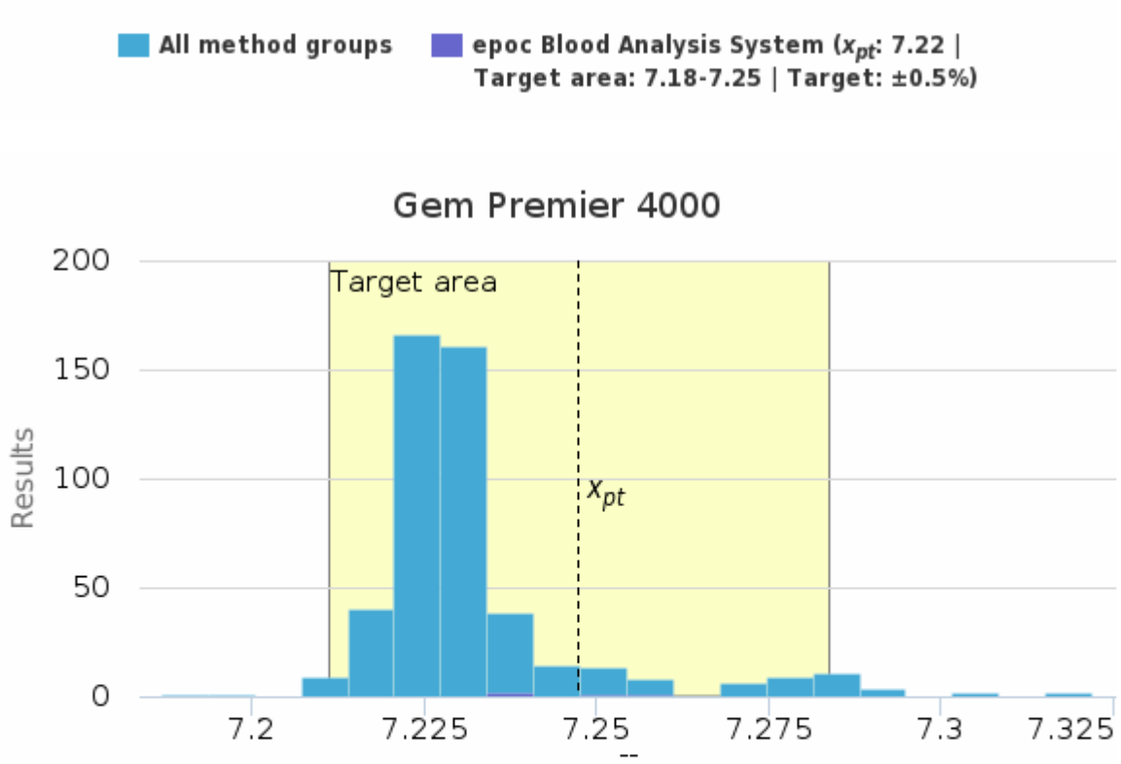


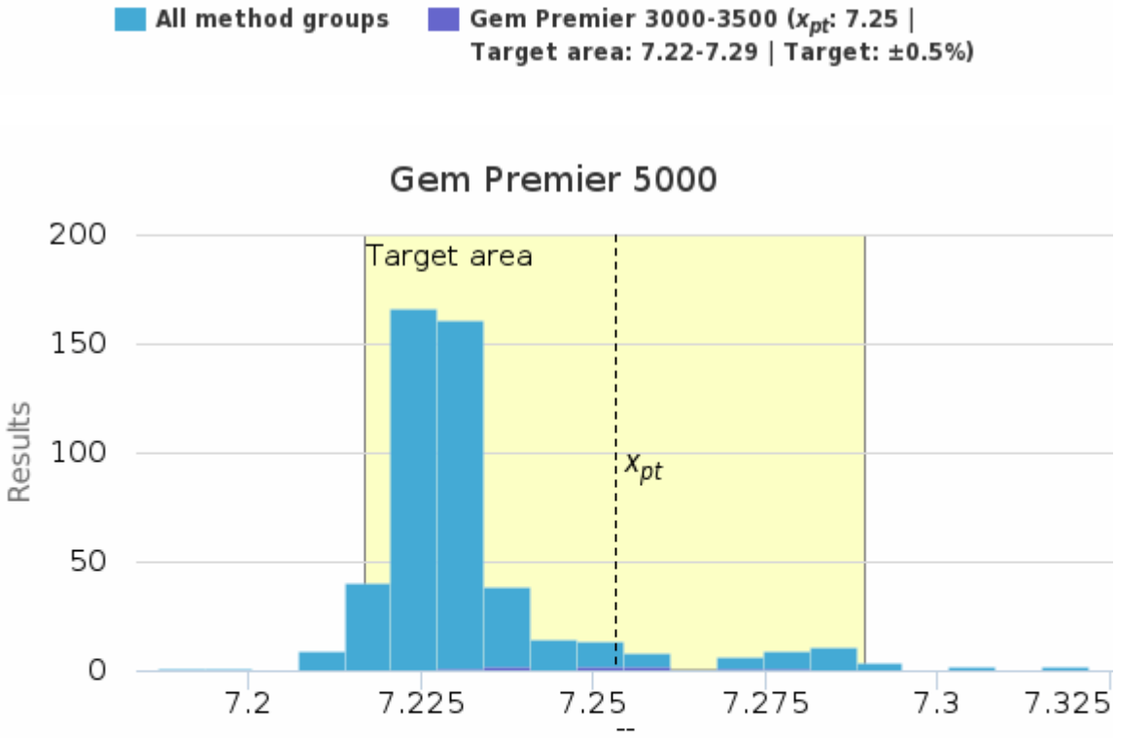
Acid-base status and electrolytes, February, 1-2023

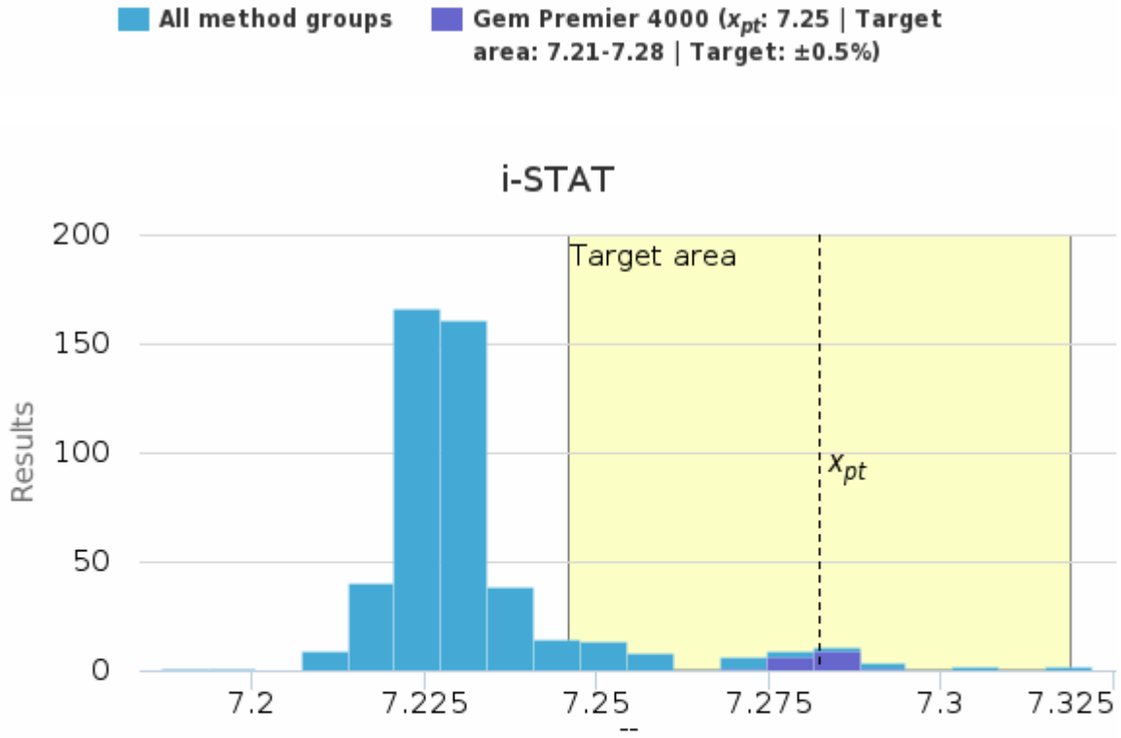




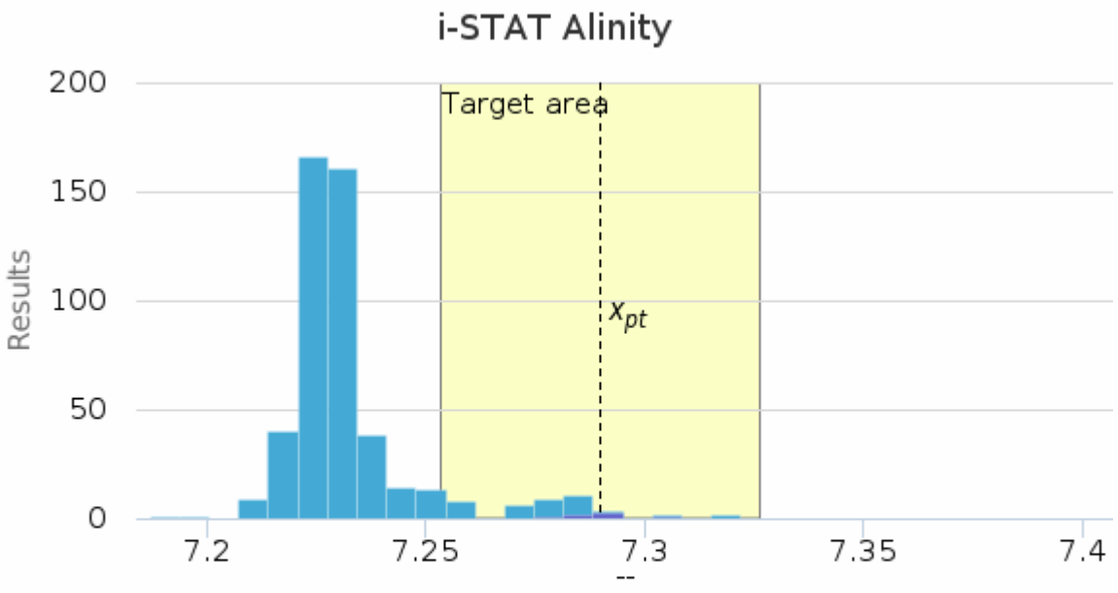


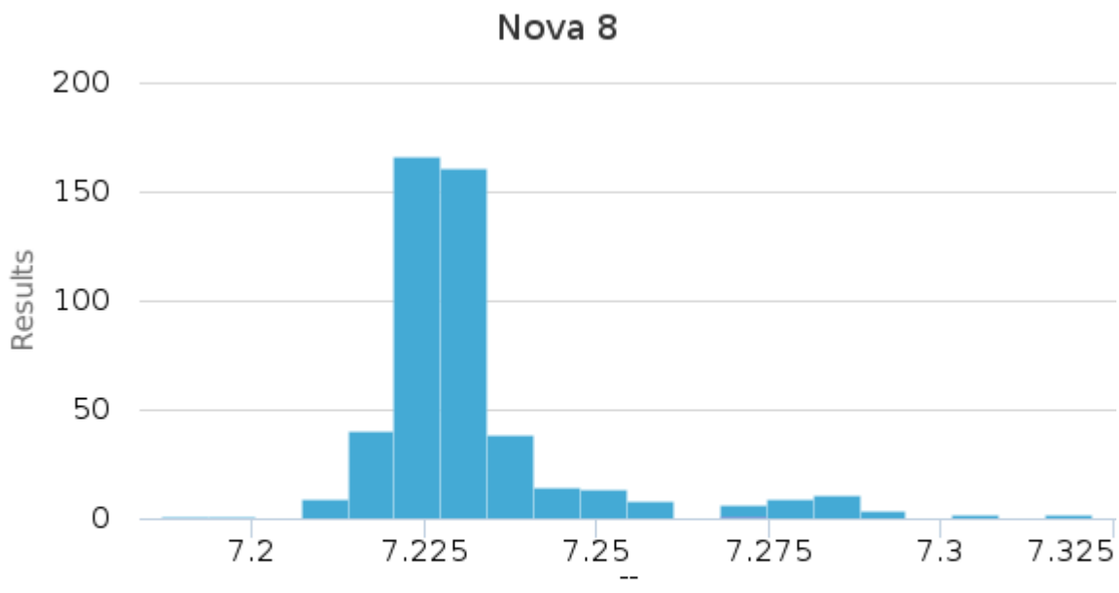


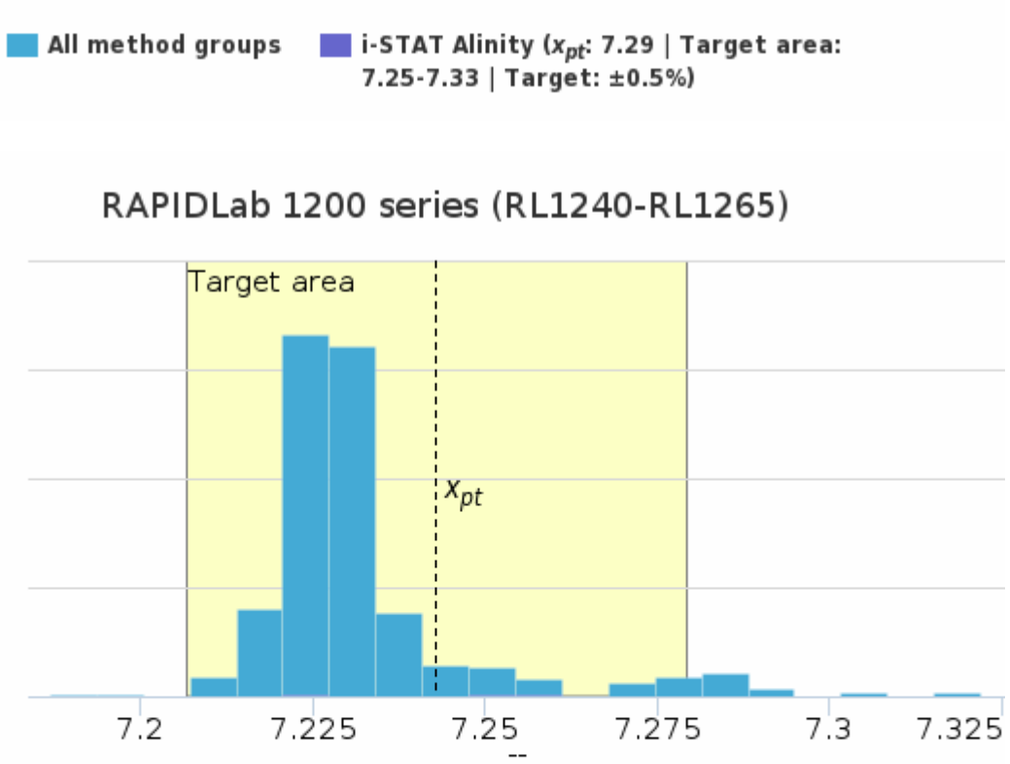


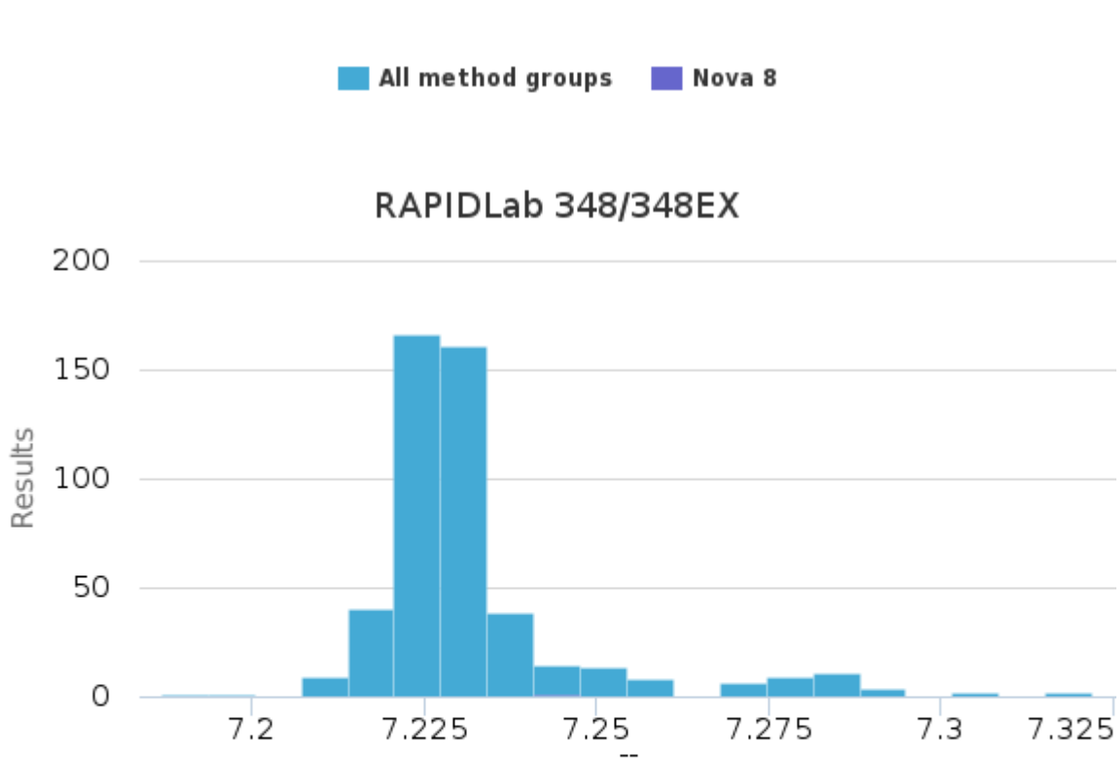


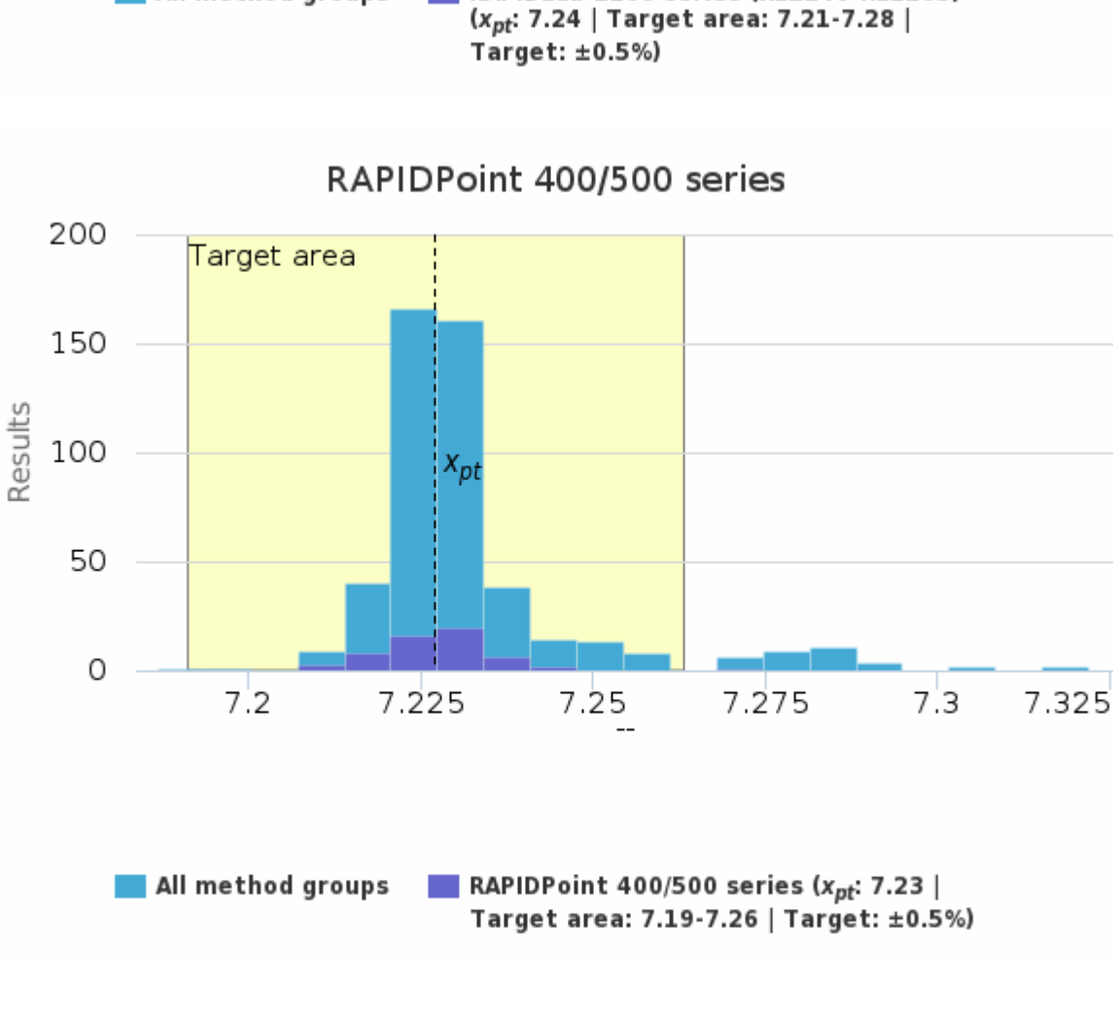
Acid-base status and electrolytes, February, 1-2023







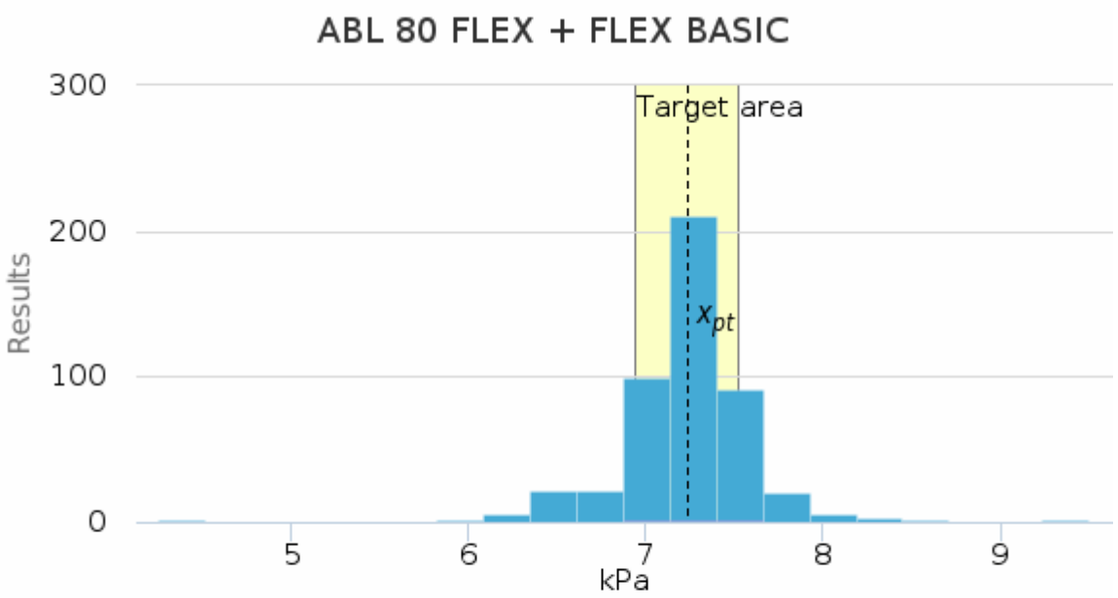


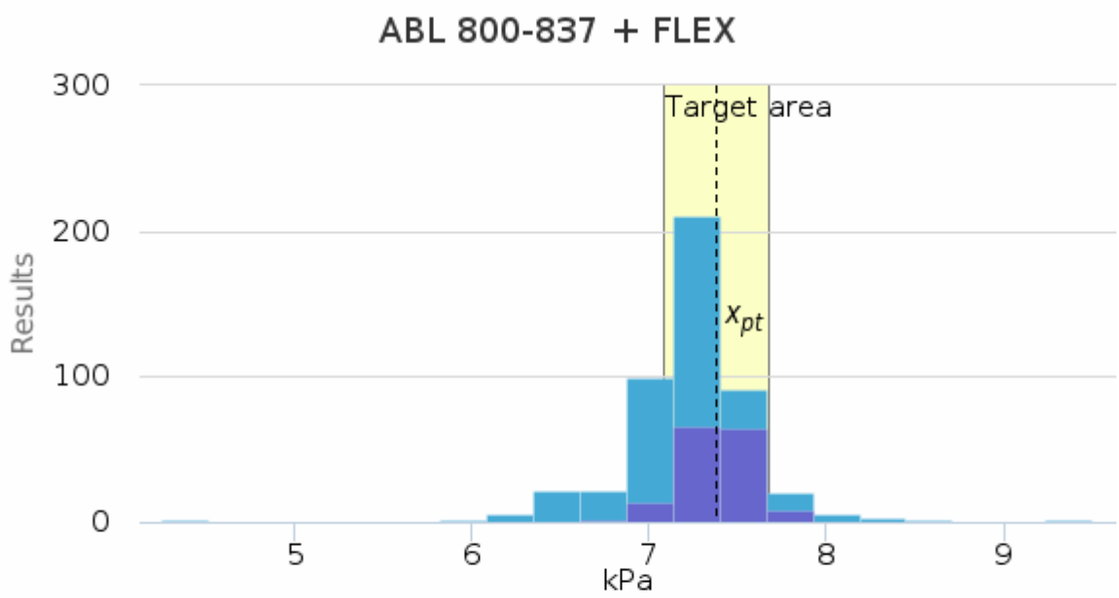


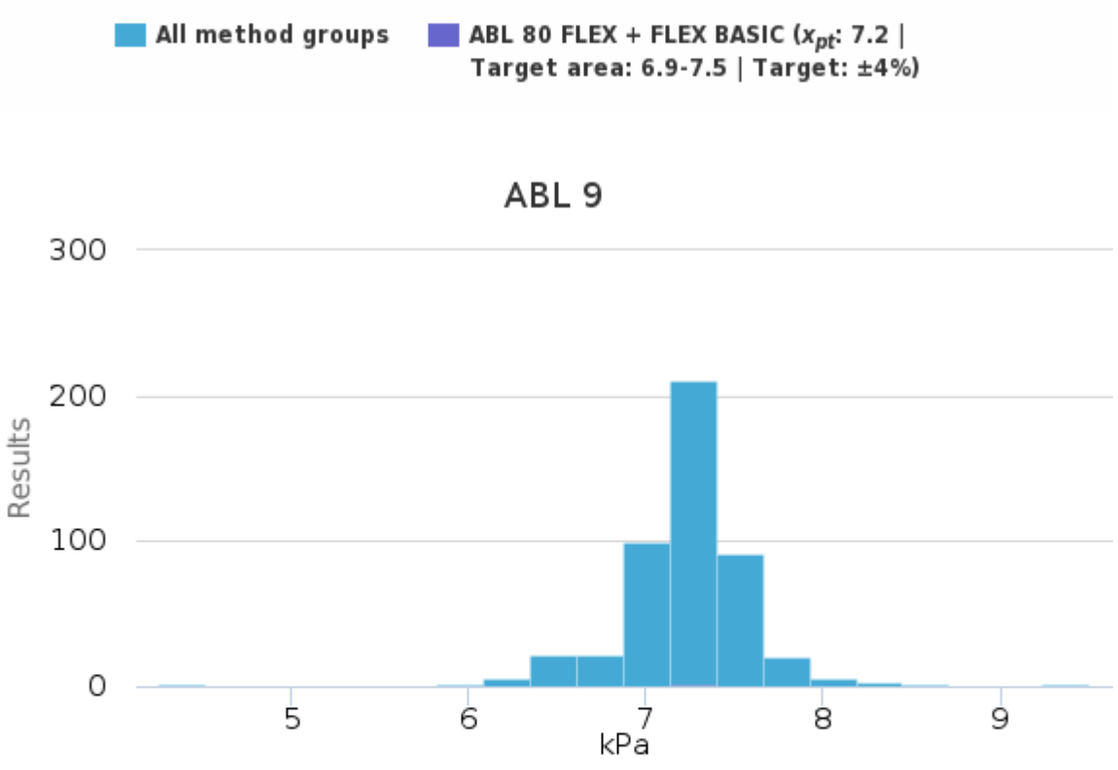
Sample S001 | CO2, kPa

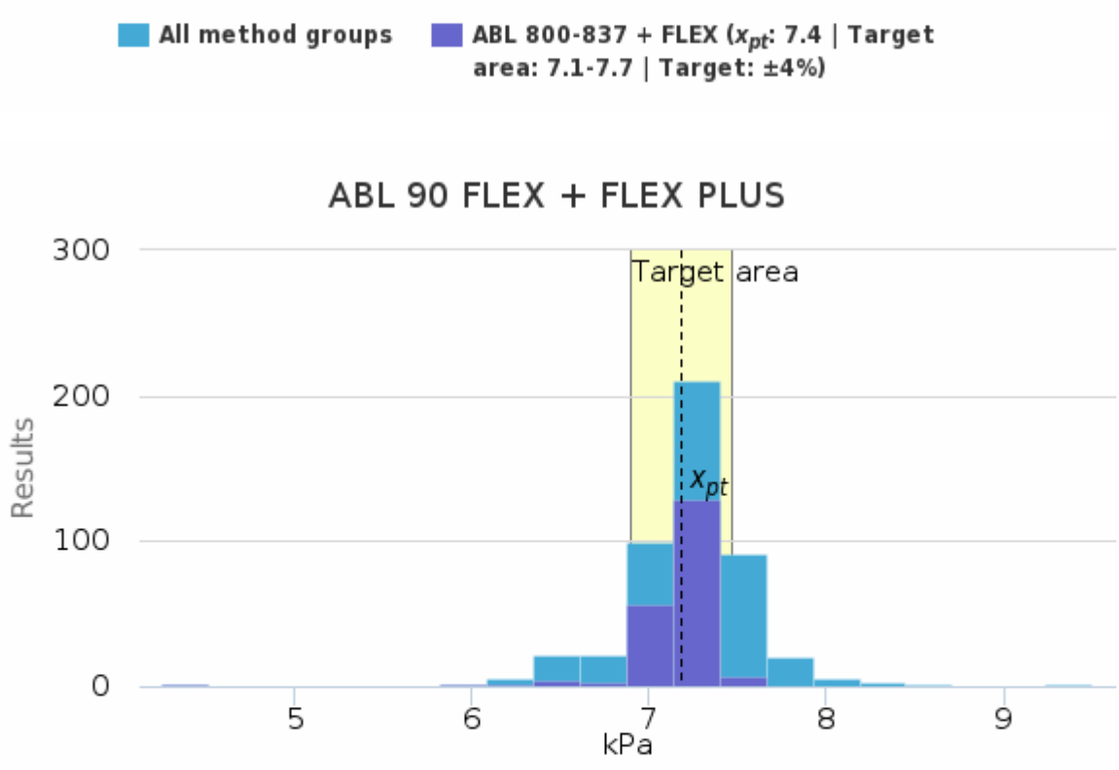
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	7.2	7.2	0.2	2.2	<0.1	7.1	7.4	-	3
ABL 800-837 + FLEX	7.4	7.4	0.2	2.4	<0.1	6.9	7.9	1	152
ABL 9	-	-	-	-	-	7.2	7.2	-	1
ABL 90 FLEX + FLEX PLUS	7.2	7.2	0.2	2.1	<0.1	6.5	7.5	3	201
Cobas b 221 / AVL 9180	7.7	7.7	0.2	2.1	<0.1	7.5	8.0	-	7
epoc Blood Analysis System	7.0	7.0	0.3	4.3	0.1	6.4	7.4	-	8
Gem Premier 3000-3500	7.6	7.4	0.4	4.8	0.1	7.2	8.2	-	11
Gem Premier 4000	7.7	7.8	0.3	3.9	0.2	7.3	8.0	-	4
Gem Premier 5000	8.2	8.1	0.6	7.6	0.2	7.4	9.5	-	9
i-STAT	6.5	6.5	0.2	2.4	<0.1	6.2	6.7	-	18
i-STAT Alinity	6.5	6.5	0.2	2.4	<0.1	6.2	6.7	-	7
RAPIDLab 1200 series (RL1240-RL1265)	7.1	7.1	0.2	2.7	0.1	6.9	7.3	-	3
RAPIDLab 348/348EX	-	-	-	-	-	7.5	7.5	-	1
RAPIDPoint 400/500 series	7.1	7.0	0.4	5.1	<0.1	6.1	7.9	-	56
All	**7.2**	**7.3**	**0.3**	**4.2**	**<0.1**	**6.2**	**8.2**	**6**	**481**

Sample S001 | CO2, kPa| histogram summaries in LabScala

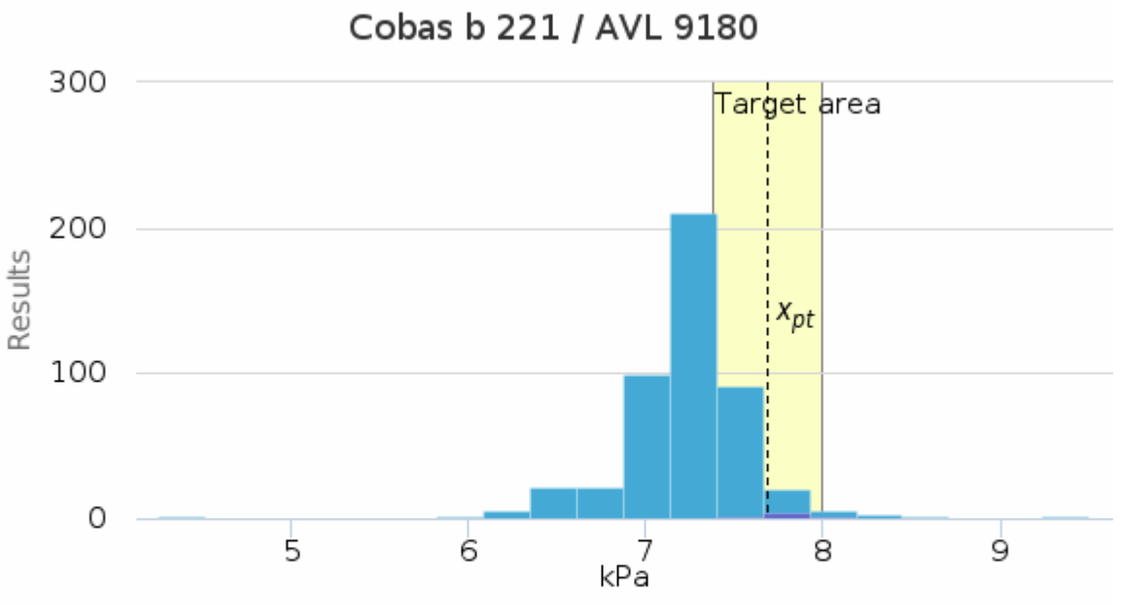


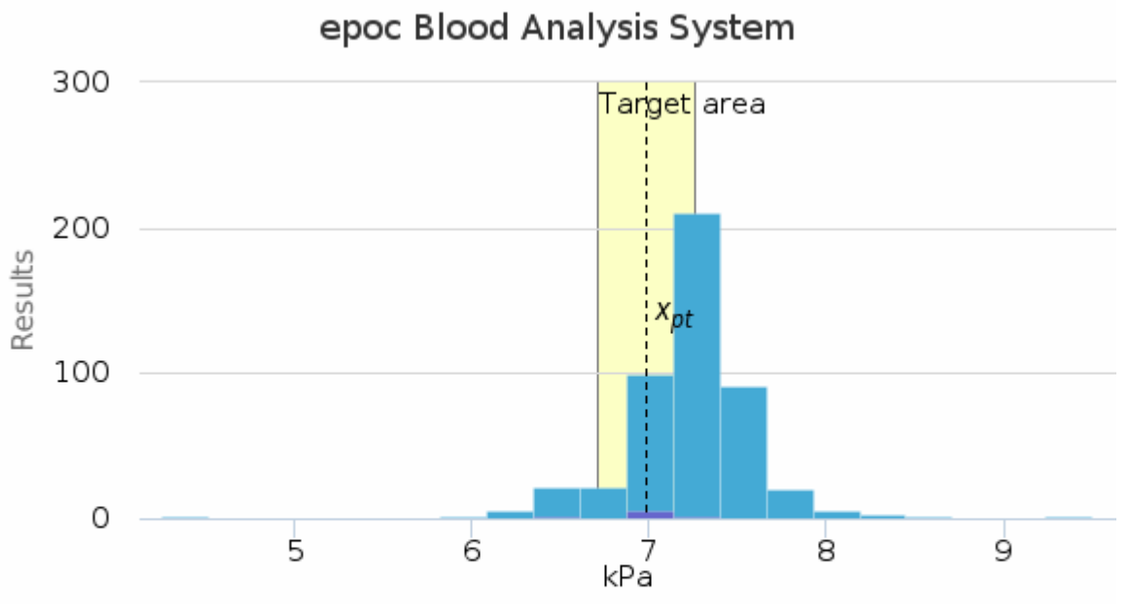






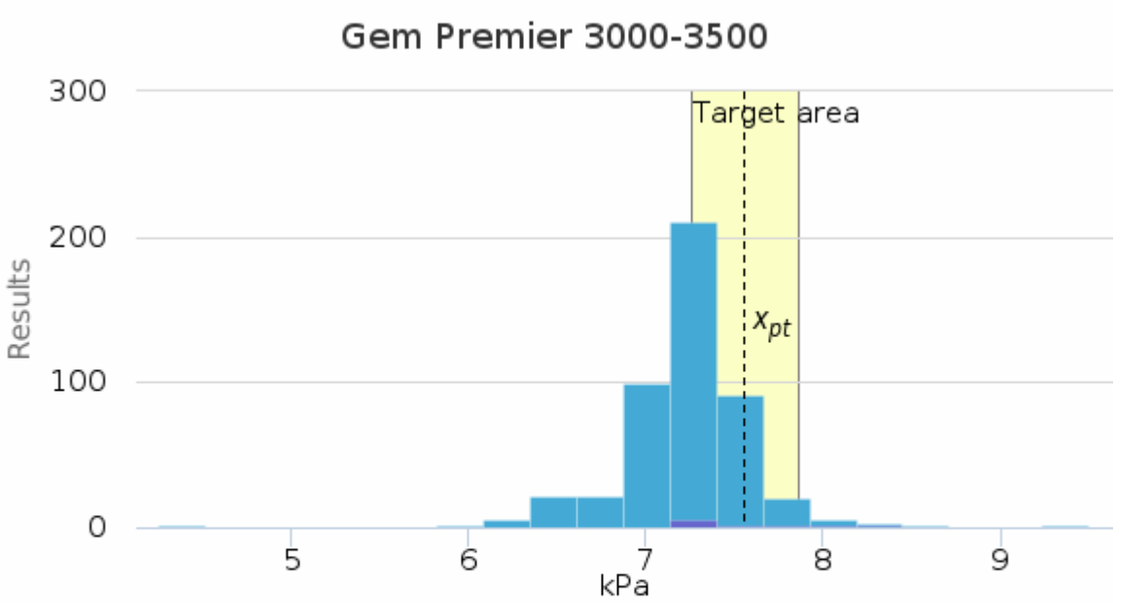
Acid-base status and electrolytes, February, 1-2023

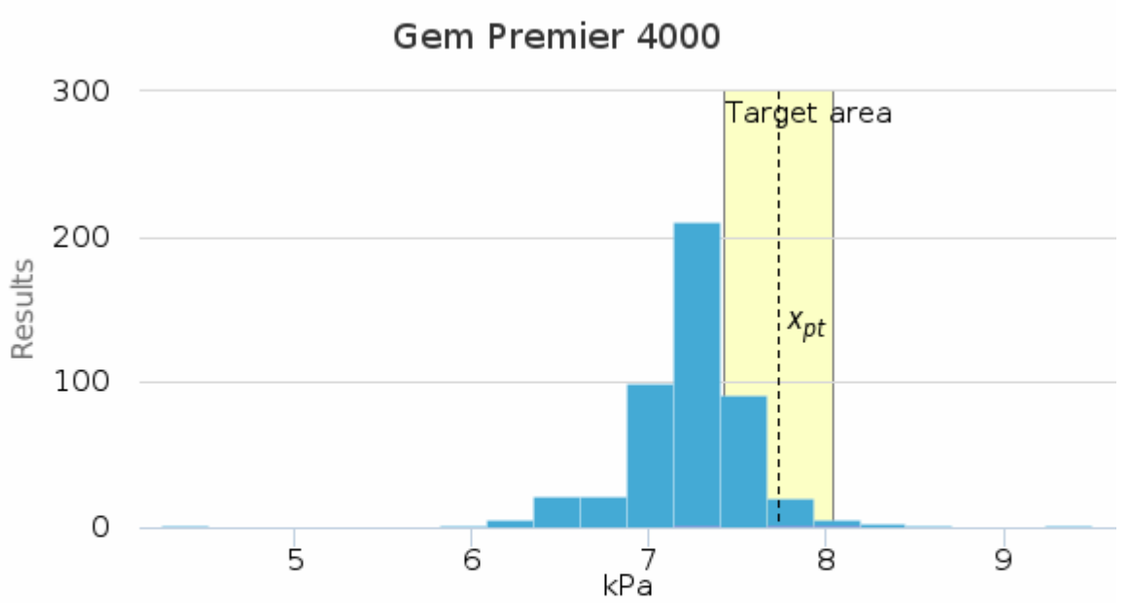




All method groups | Cobas b 221 / AVL 9180 (x_{pt}: 7.7 | Target area: 7.4-8.0 | Target: ±4%)

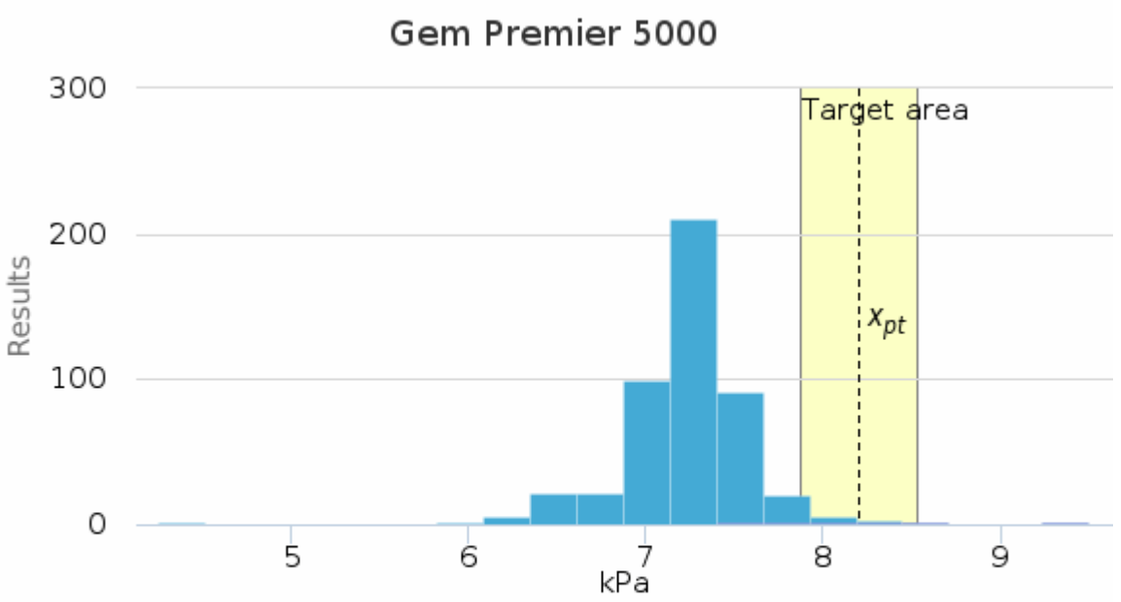
All method groups | epoc Blood Analysis System (x_{pt}: 7.0 | Target area: 6.7-7.3 | Target: ±4%)

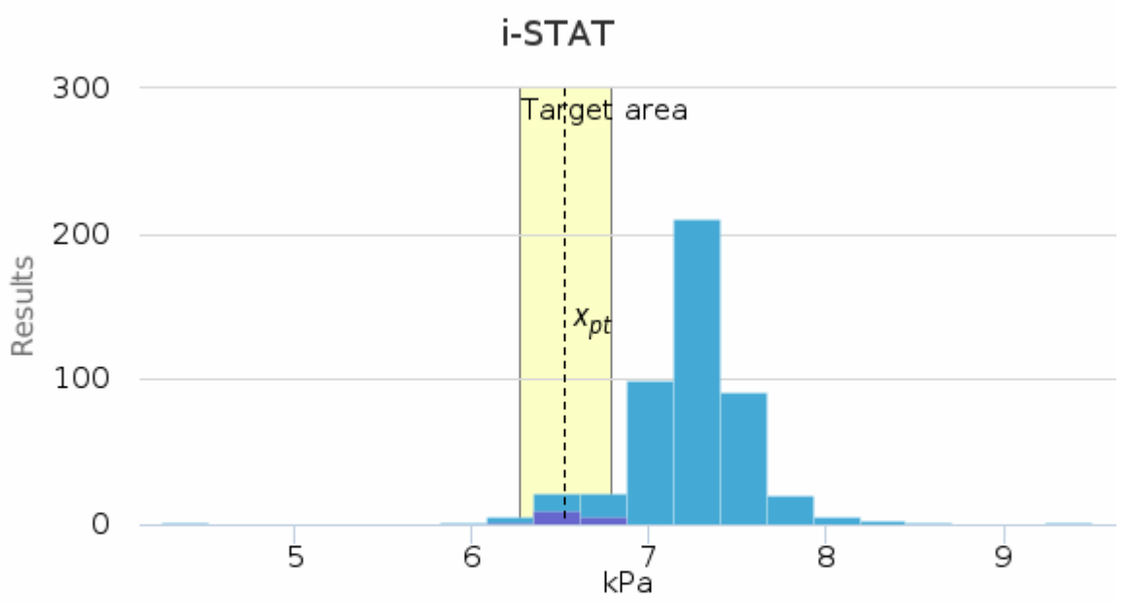




All method groups | Gem Premier 3000-3500 (x_{pt}: 7.6 | Target area: 7.3-7.9 | Target: ±4%)

All method groups | Gem Premier 4000 (x_{pt}: 7.7 | Target area: 7.4-8.0 | Target: ±4%)

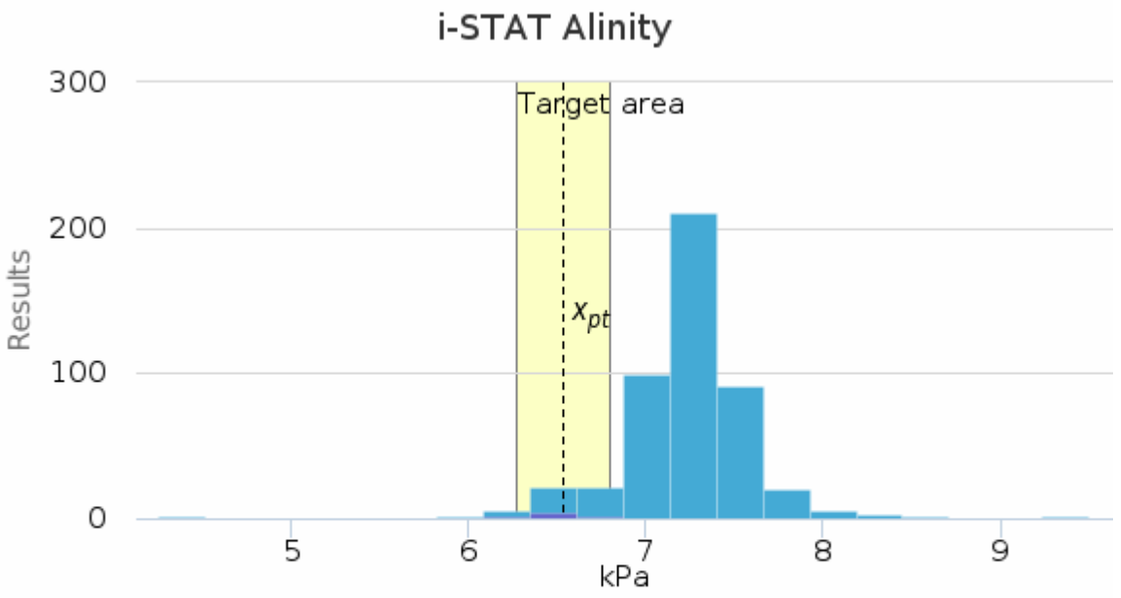


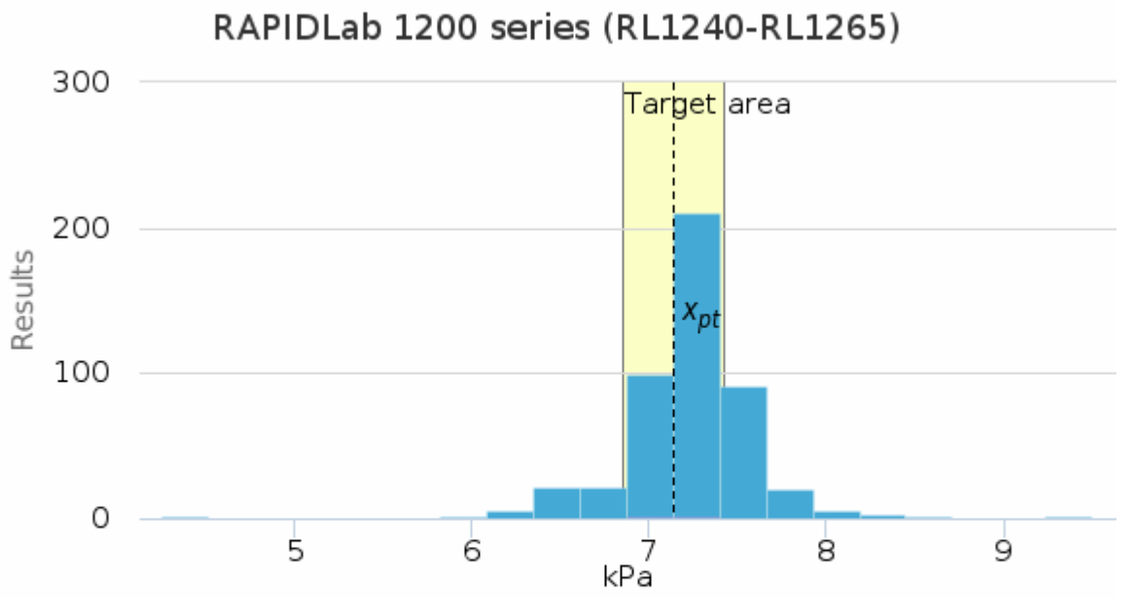


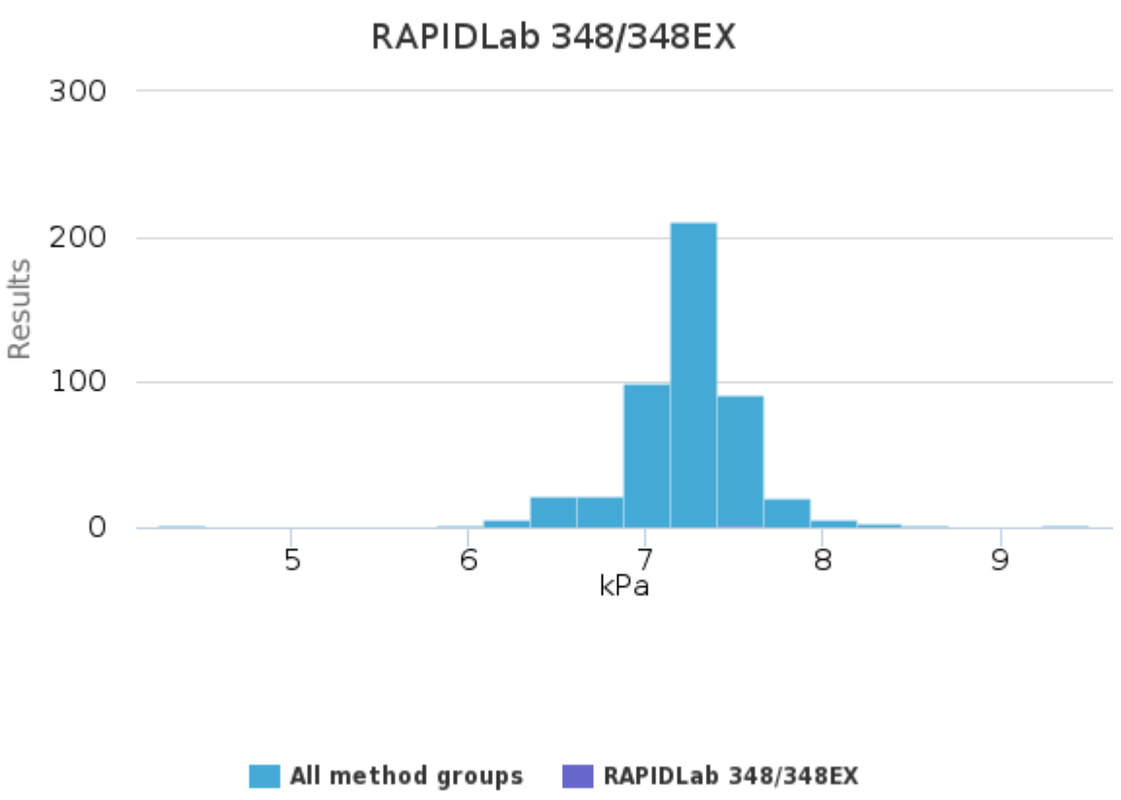
All method groups | Gem Premier 5000 (x_{pt}: 8.2 | Target area: 7.9-8.5 | Target: ±4%)

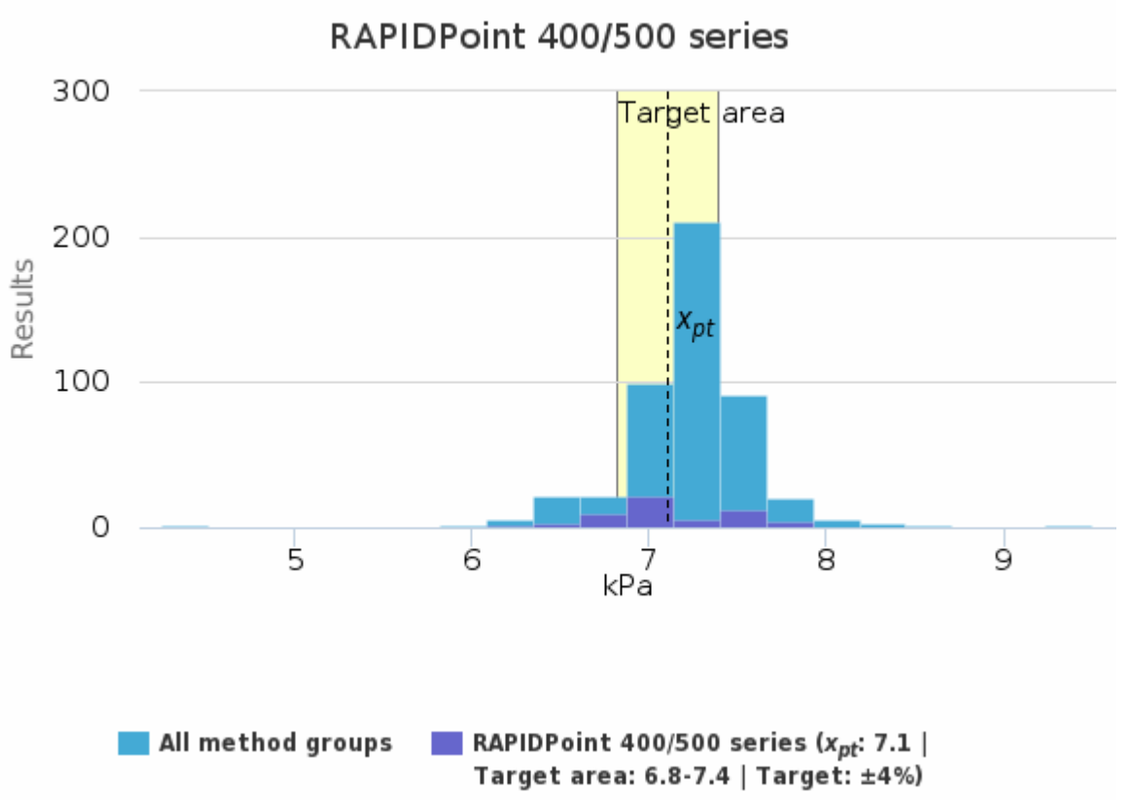
All method groups | i-STAT (x_{pt}: 6.5 | Target area: 6.3-6.8 | Target: ±4%)

Acid-base status and electrolytes, February, 1-2023





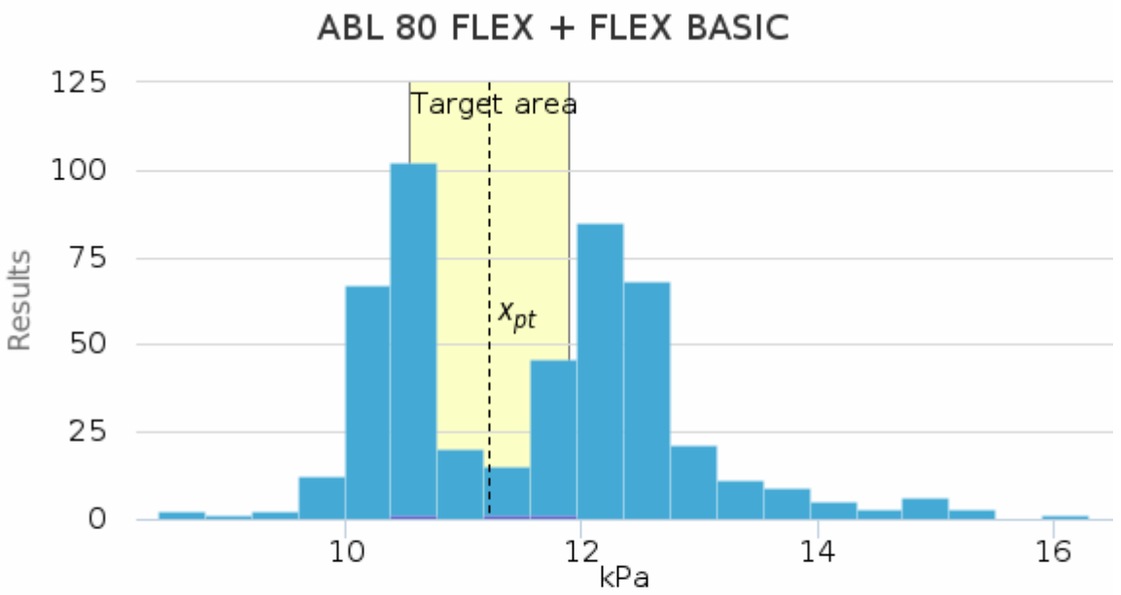


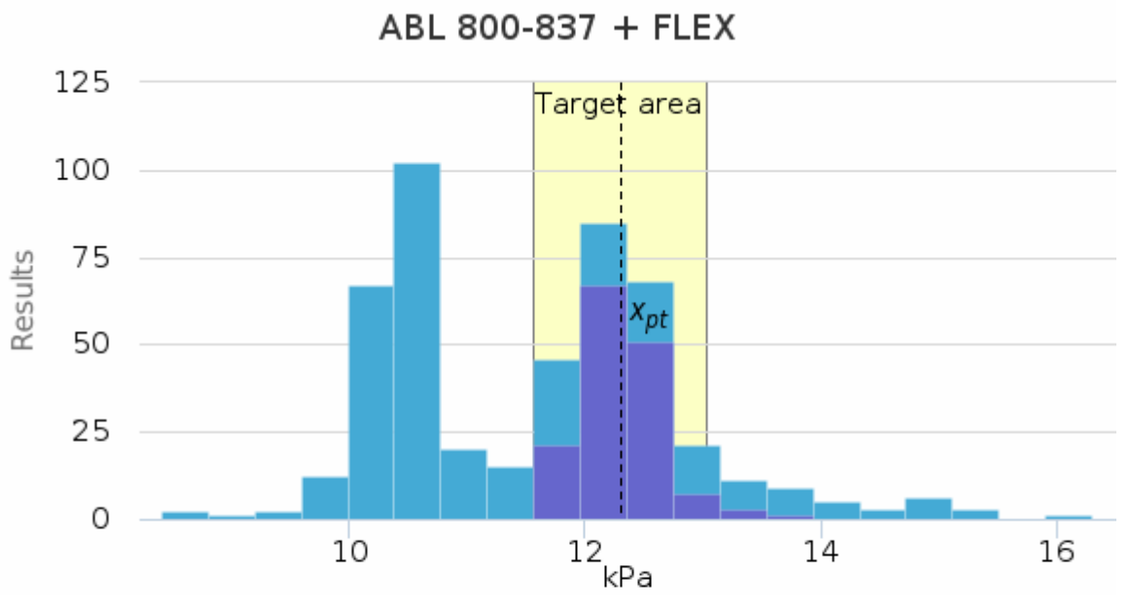


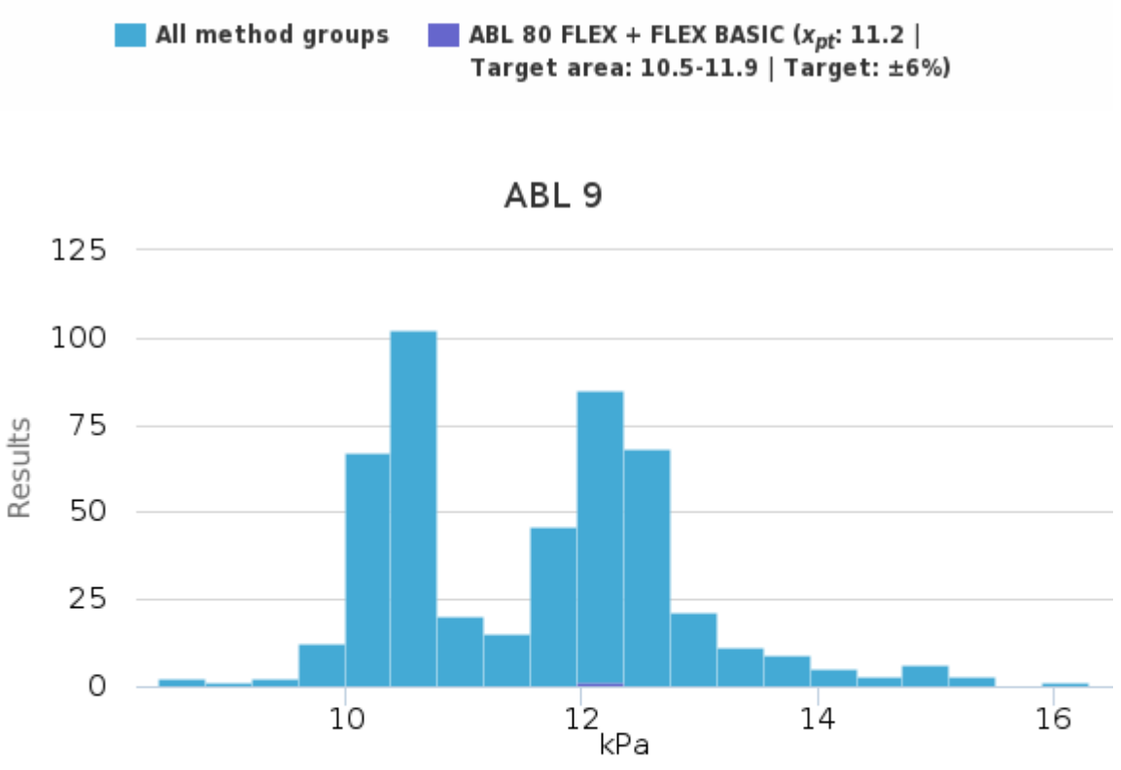
Sample S001 | O2, kPa

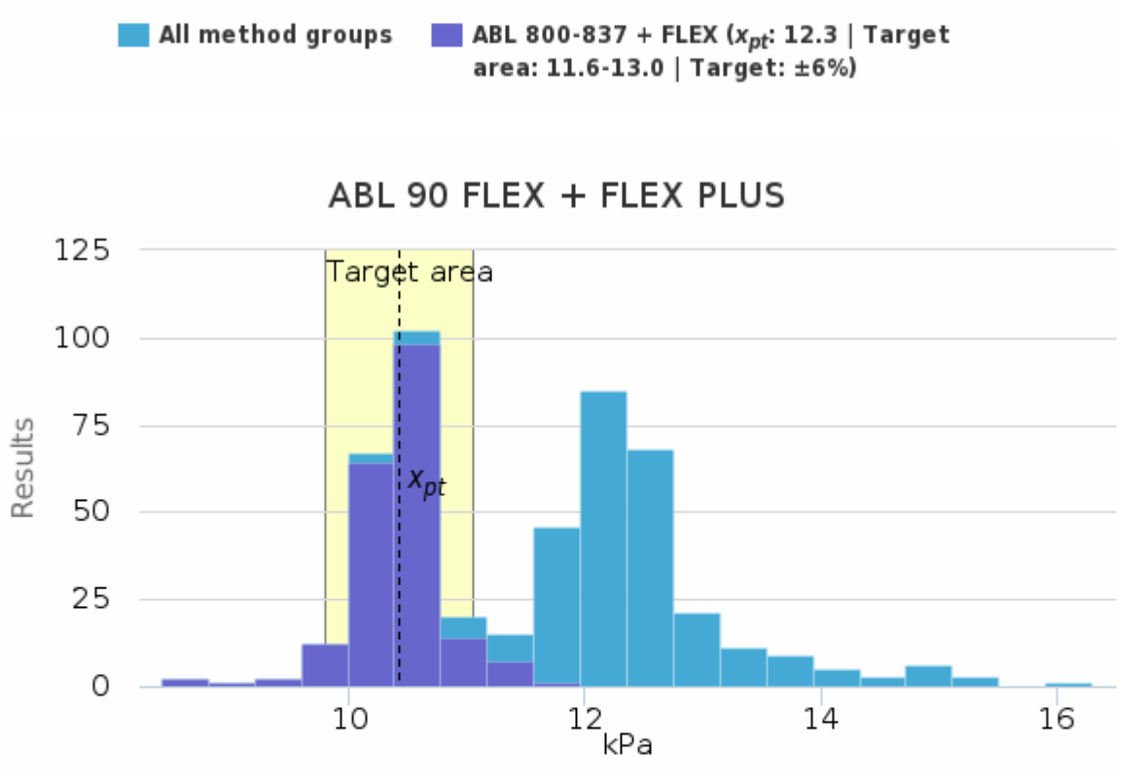
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	11.2	11.3	0.5	4.8	0.3	10.6	11.7	-	3
ABL 800-837 + FLEX	12.3	12.3	0.3	2.6	<0.1	11.6	13.2	2	150
ABL 9	-	-	-	-	-	12.0	12.0	-	1
ABL 90 FLEX + FLEX PLUS	10.4	10.4	0.3	3.1	<0.1	9.5	11.4	4	201
Cobas b 221 / AVL 9180	14.2	14.8	1.9	13.1	0.7	10.1	15.5	-	7
epoc Blood Analysis System	11.4	11.3	0.9	8.2	0.3	10.0	13.3	-	8
Gem Premier 3000-3500	12.2	12.1	0.5	3.7	0.1	11.6	12.9	-	11
Gem Premier 4000	11.6	11.6	0.7	5.9	0.3	10.9	12.2	-	4
Gem Premier 5000	11.1	11.0	0.4	3.9	0.1	10.3	11.7	-	9
i-STAT	13.7	13.7	0.8	5.5	0.2	12.4	15.3	-	18
i-STAT Alinity	14.7	14.9	0.9	6.1	0.3	13.7	16.3	-	7
RAPIDLab 1200 series (RL1240-RL1265)	11.6	11.3	1.0	8.7	0.6	10.8	12.7	-	3
RAPIDLab 348/348EX	-	-	-	-	-	12.0	12.0	-	1
RAPIDPoint 400/500 series	12.4	12.3	0.6	4.9	<0.1	11.5	13.8	-	56
All	**11.6**	**11.7**	**1.2**	**10.4**	**<0.1**	**8.4**	**15.3**	**2**	**479**

Sample S001 | O2, kPa| histogram summaries in LabScala

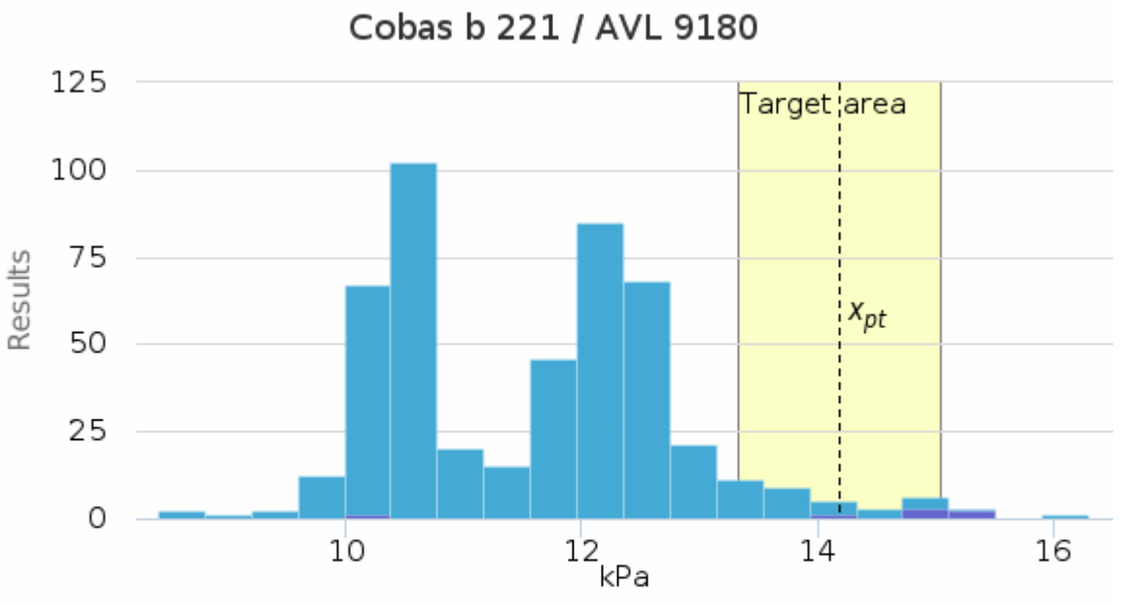


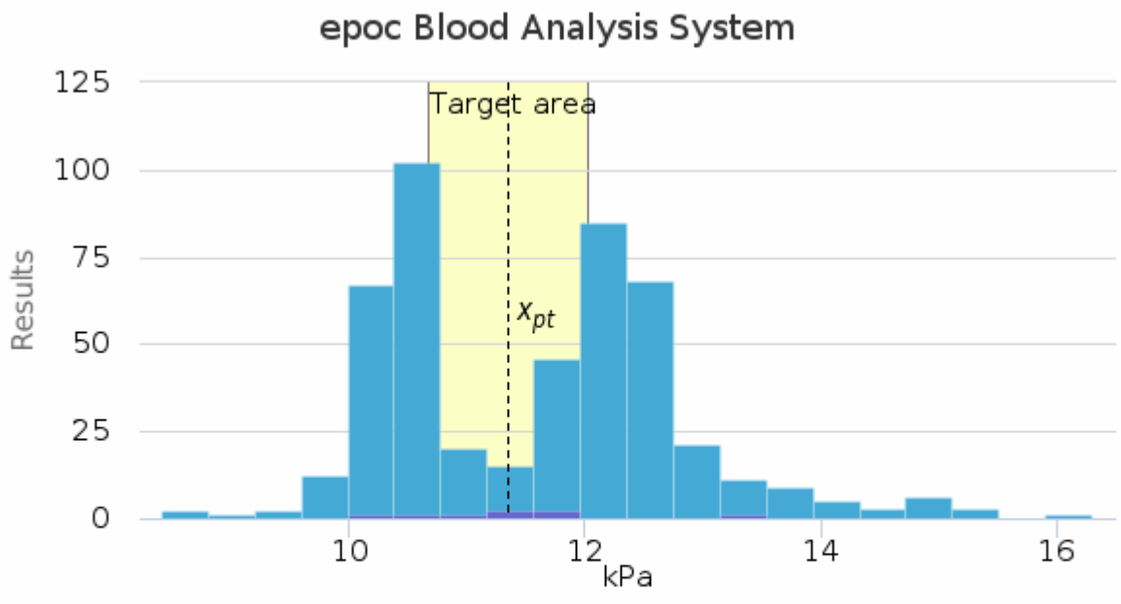


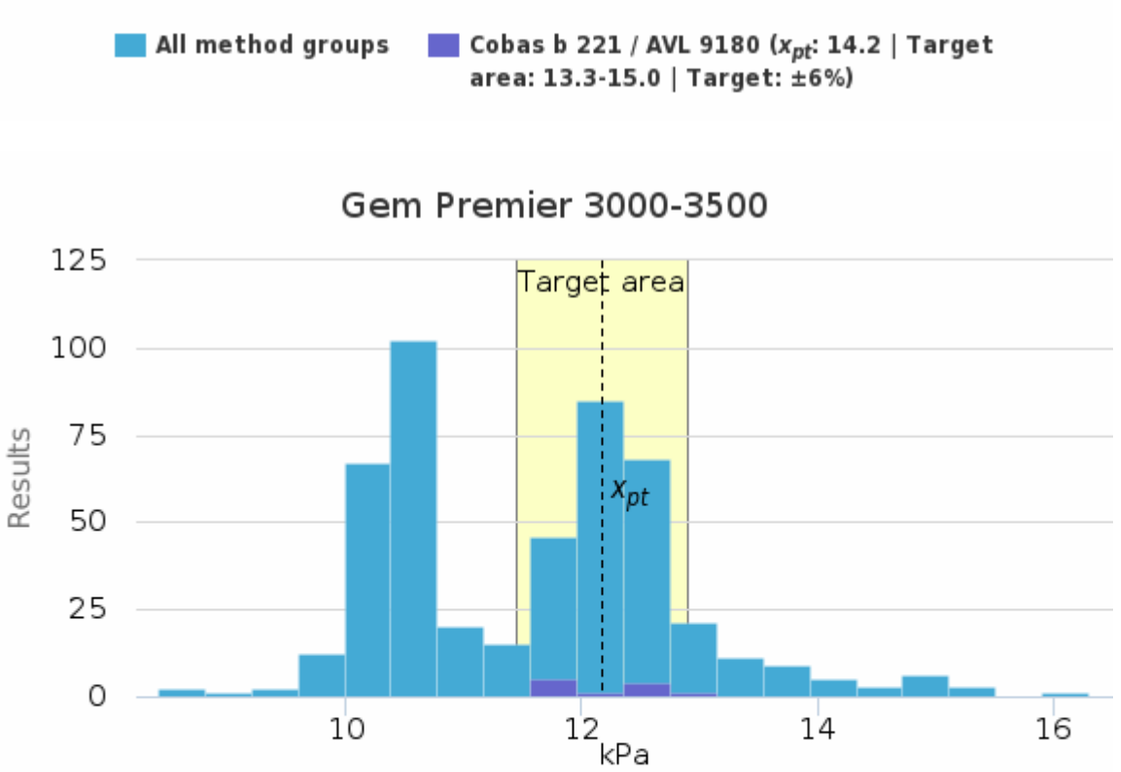


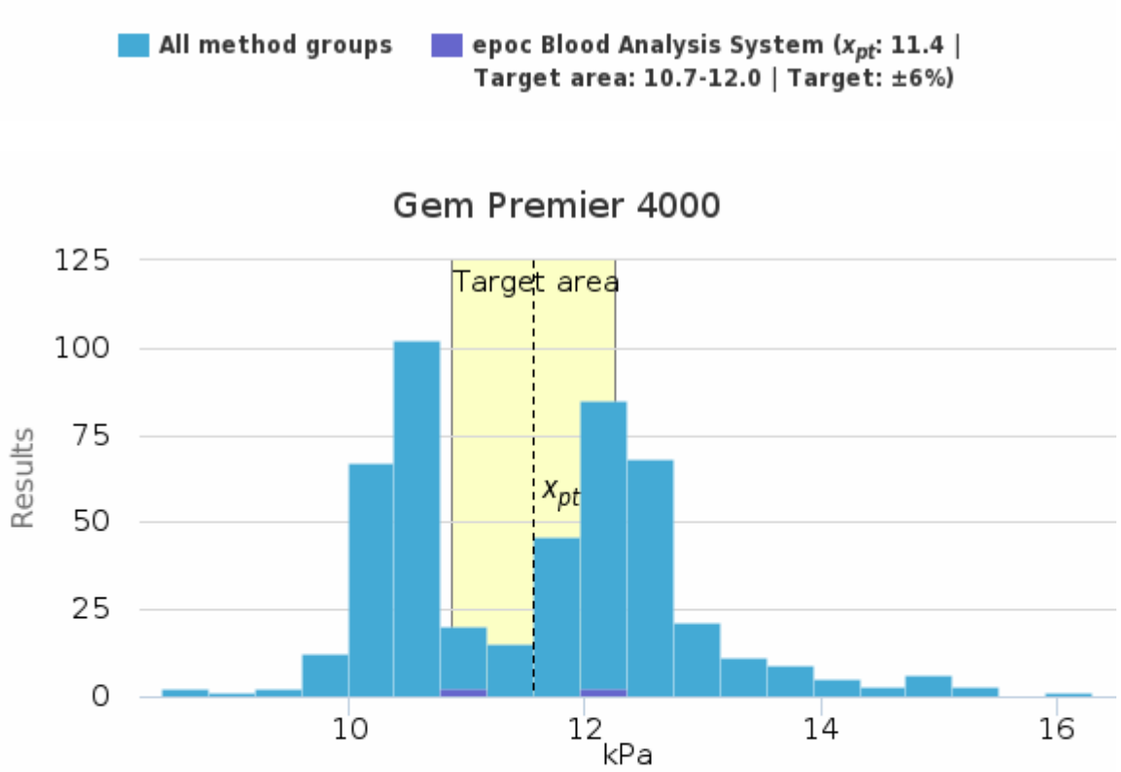


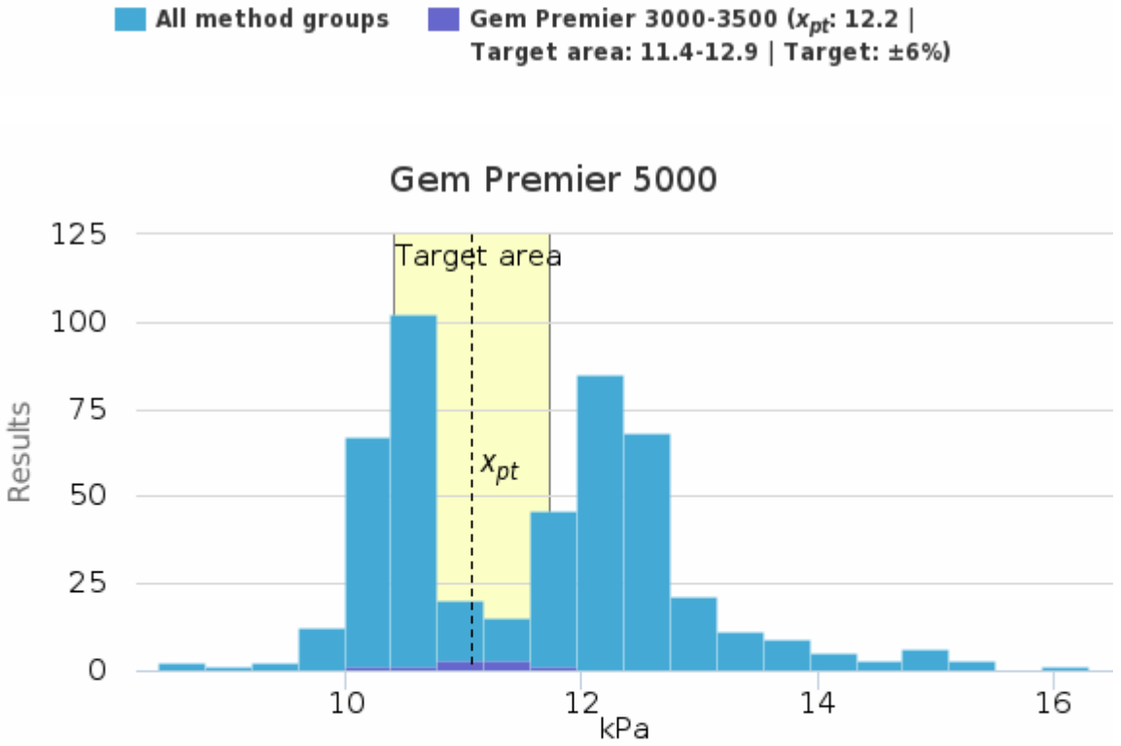
Acid-base status and electrolytes, February, 1-2023

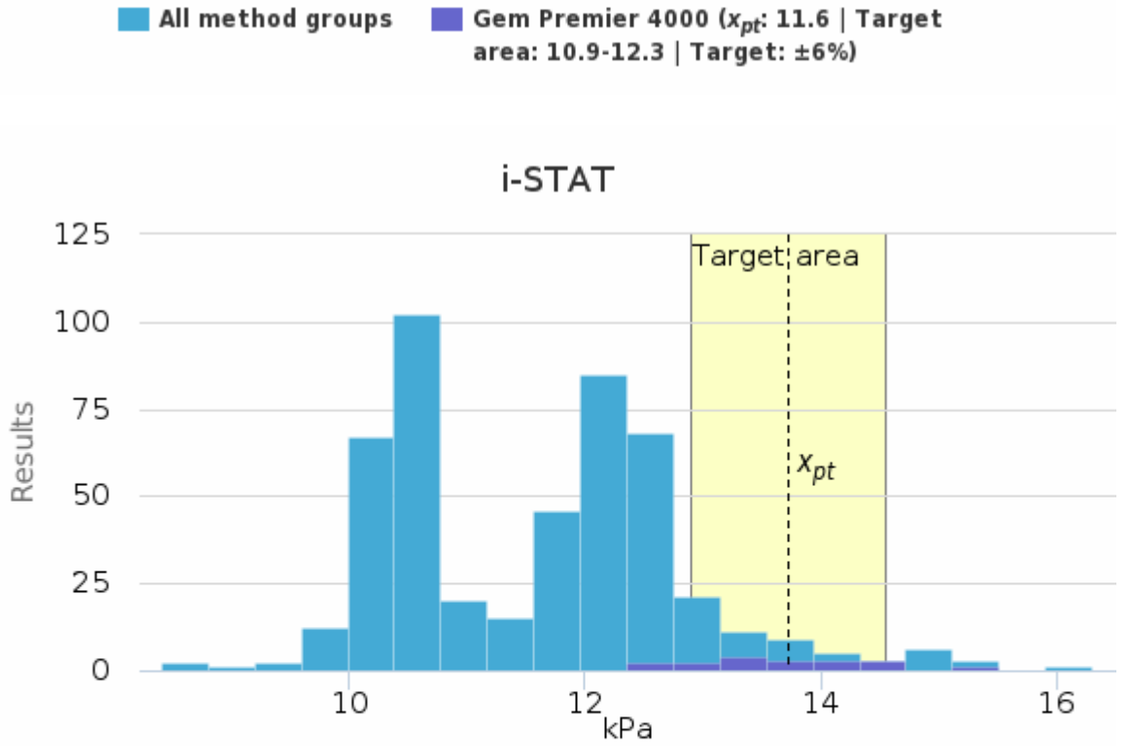




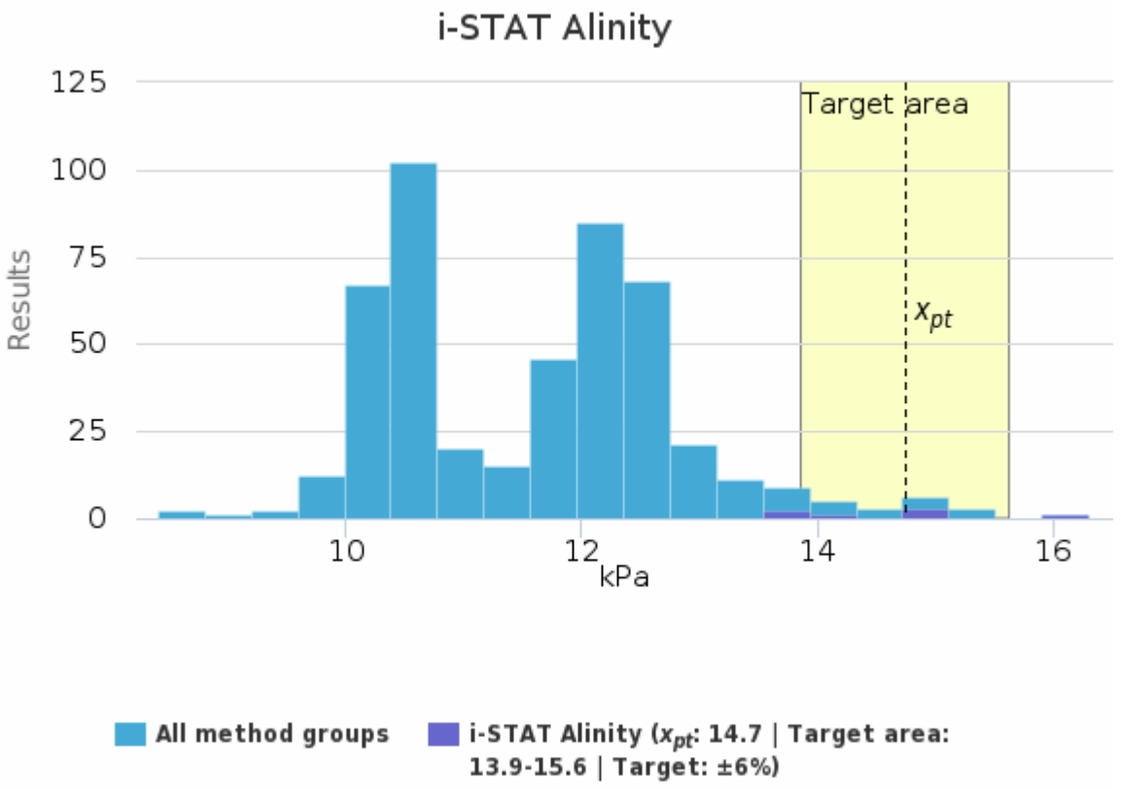


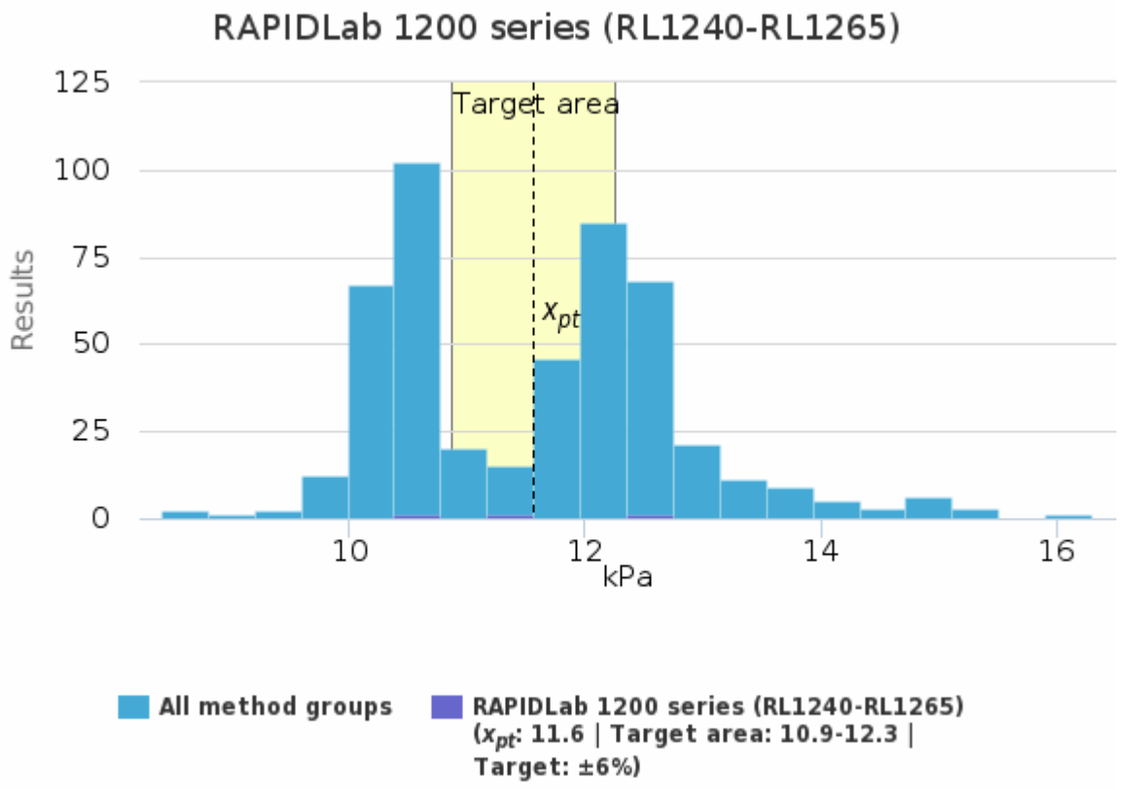


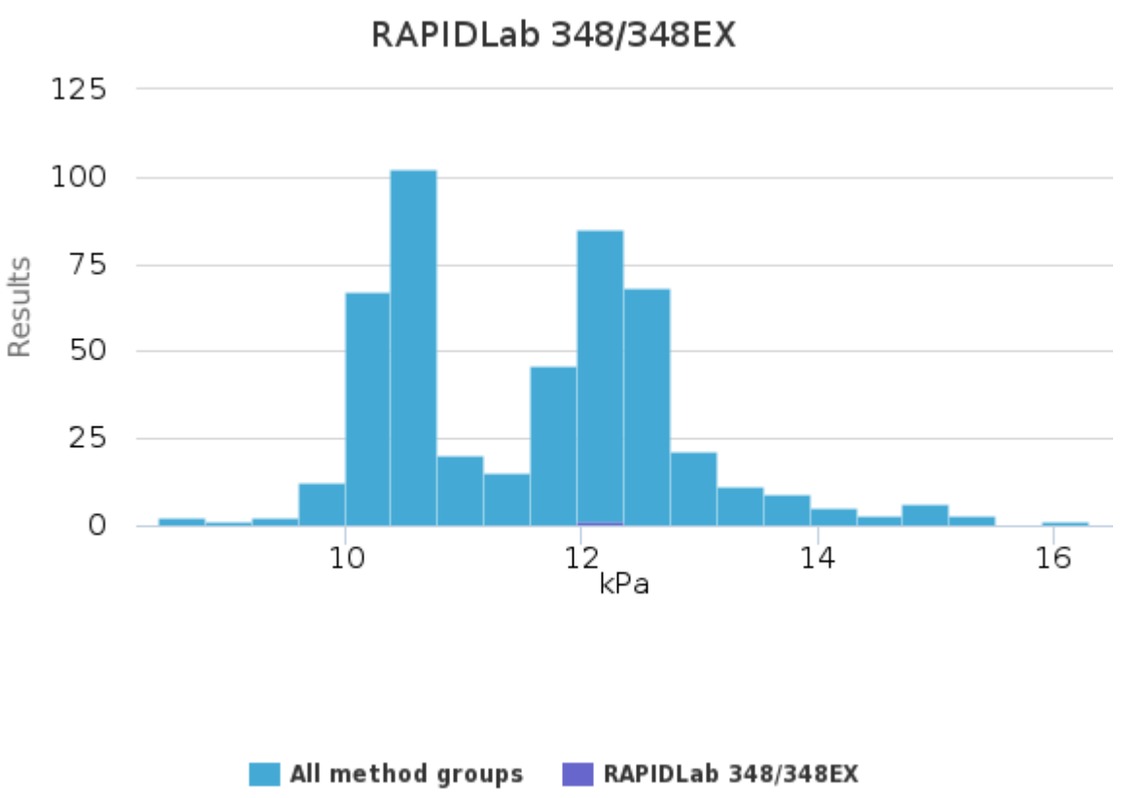


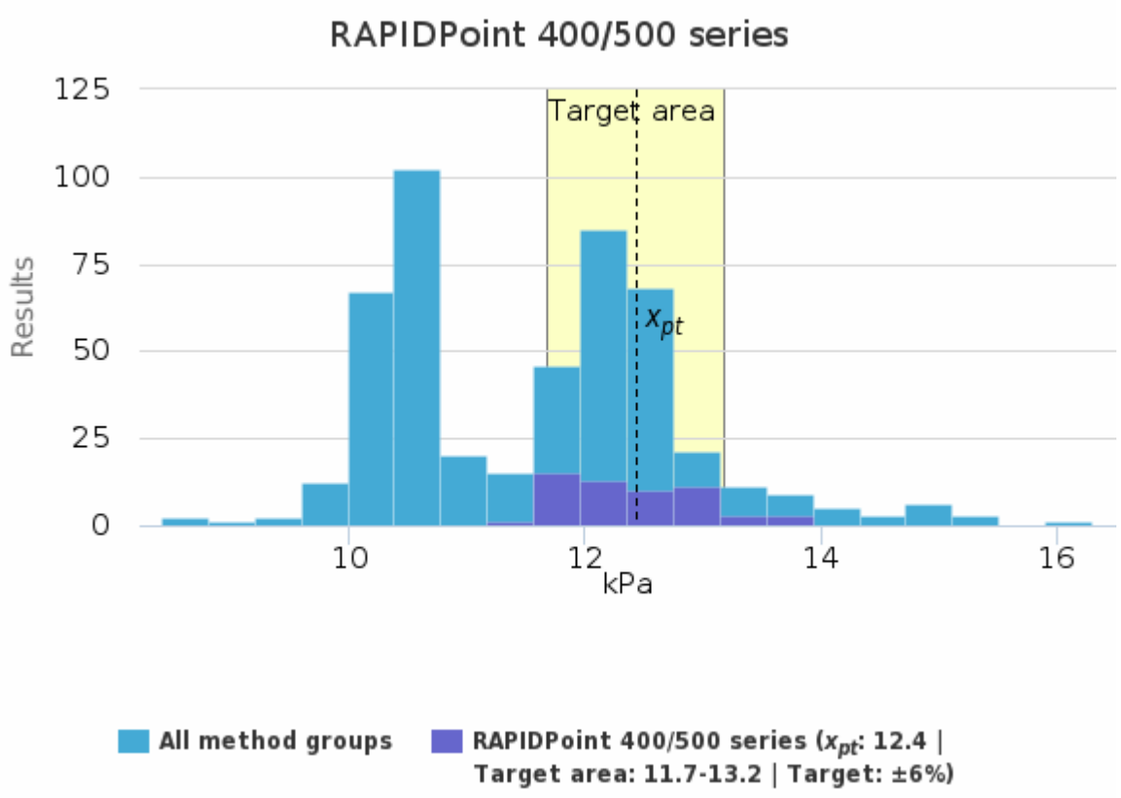


Acid-base status and electrolytes, February, 1-2023





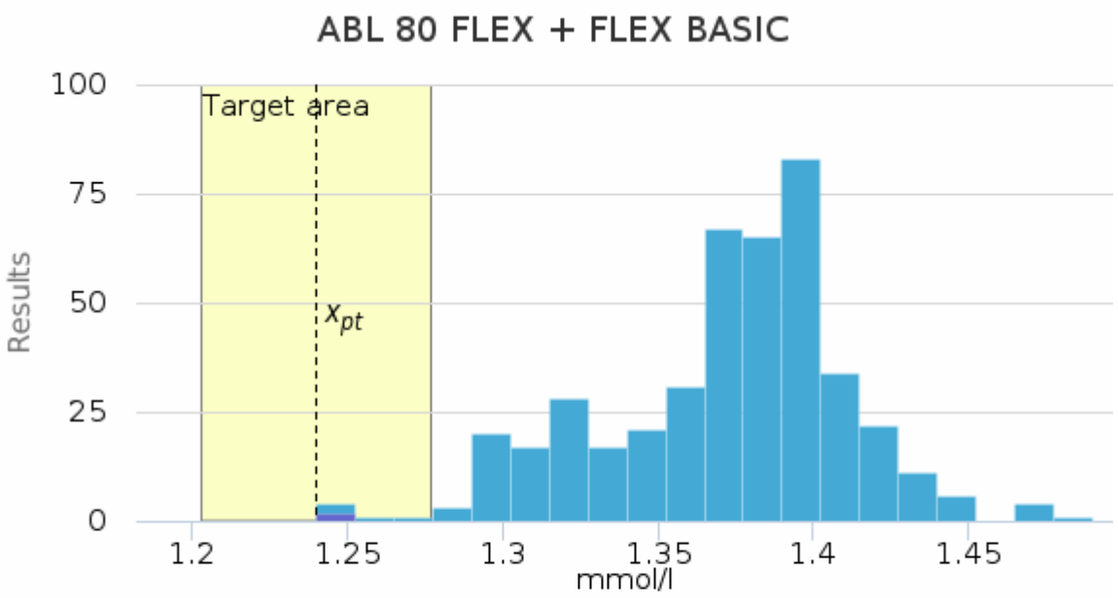


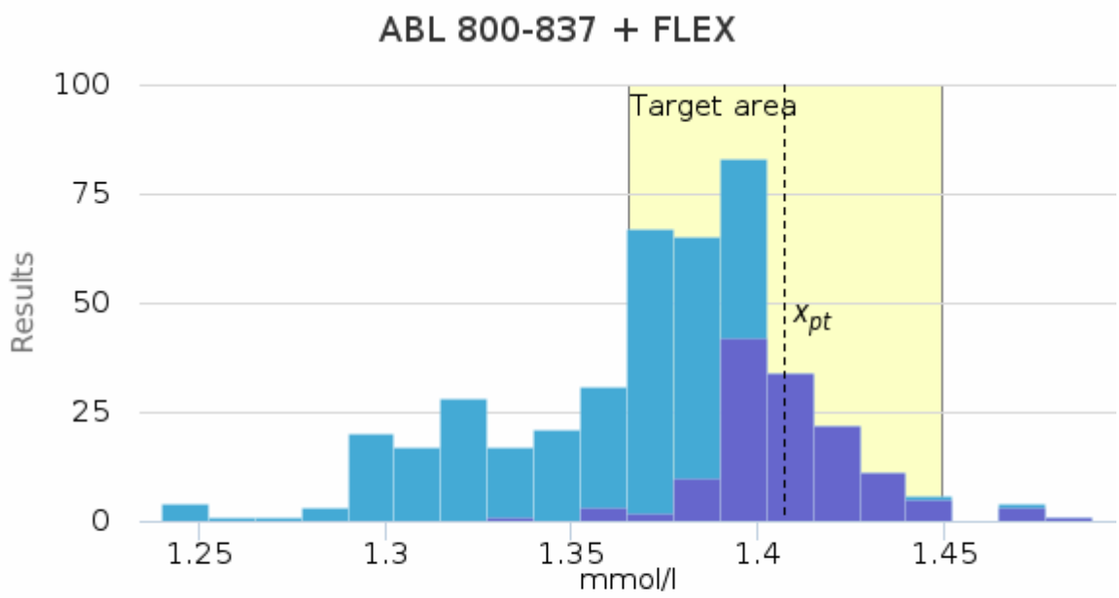


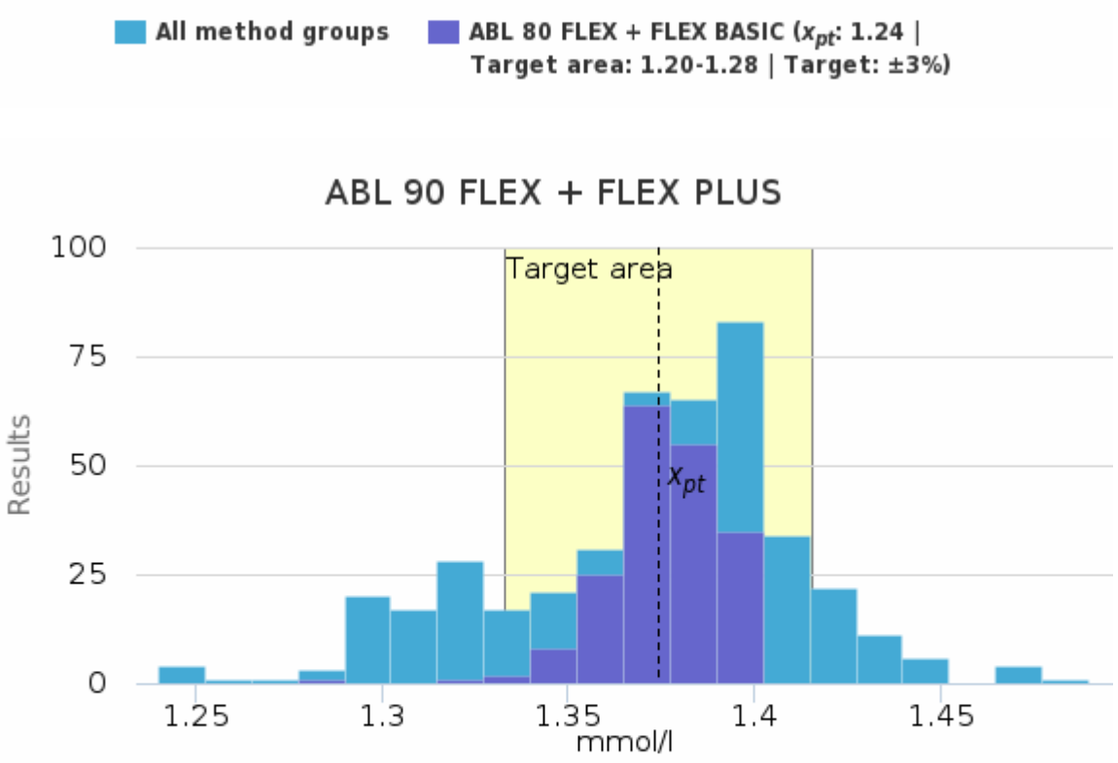
Sample S001 | Ca-ion actual, mmol/l

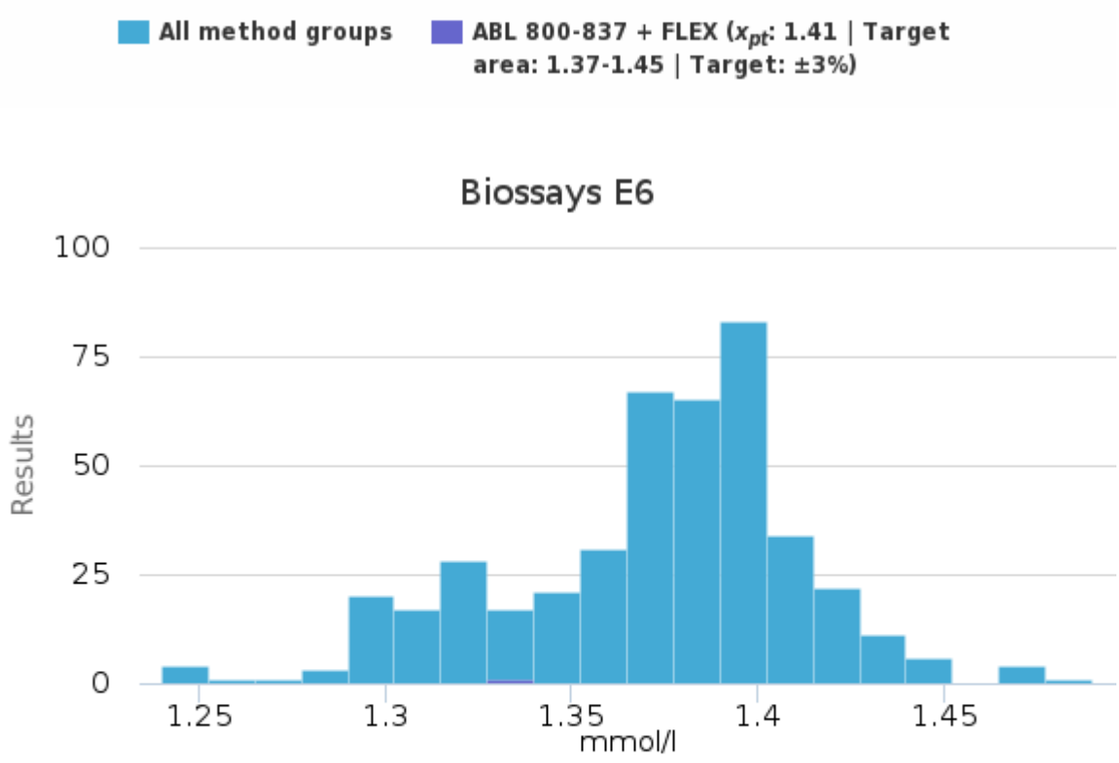
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	1.24	1.24	<0.01	<0.1	<0.01	1.24	1.24	-	2
ABL 800-837 + FLEX	1.41	1.41	0.02	1.4	<0.01	1.36	1.47	2	134
ABL 90 FLEX + FLEX PLUS	1.37	1.37	0.01	0.9	<0.01	1.33	1.40	2	191
Biossays E6	-	-	-	-	-	1.33	1.33	-	1
Cobas b 221 / AVL 9180	1.31	1.30	0.04	2.8	0.01	1.27	1.39	-	8
epoc Blood Analysis System	1.33	1.32	0.03	2.4	0.01	1.30	1.39	-	8
Gem Premier 3000-3500	1.30	1.30	0.03	2.3	<0.01	1.24	1.34	-	11
Gem Premier 4000	1.40	1.39	0.04	2.7	0.02	1.36	1.45	-	4
Gem Premier 5000	1.32	1.31	0.06	4.7	0.02	1.25	1.47	-	9
i-STAT	1.32	1.32	0.02	1.4	<0.01	1.29	1.35	-	9
i-STAT Alinity	1.34	1.34	0.02	1.4	<0.01	1.31	1.36	-	5
Nova 8	-	-	-	-	-	1.39	1.39	-	1
RAPIDLab 1200 series (RL1240-RL1265)	1.31	1.31	<0.01	<0.1	<0.01	1.31	1.31	-	2
RAPIDPoint 400/500 series	1.32	1.32	0.02	1.2	<0.01	1.29	1.37	1	51
All	**1.37**	**1.38**	**0.04**	**2.7**	**<0.01**	**1.27**	**1.49**	**5**	**436**

Sample S001 | Ca-ion actual, mmol/l| histogram summaries in LabScala

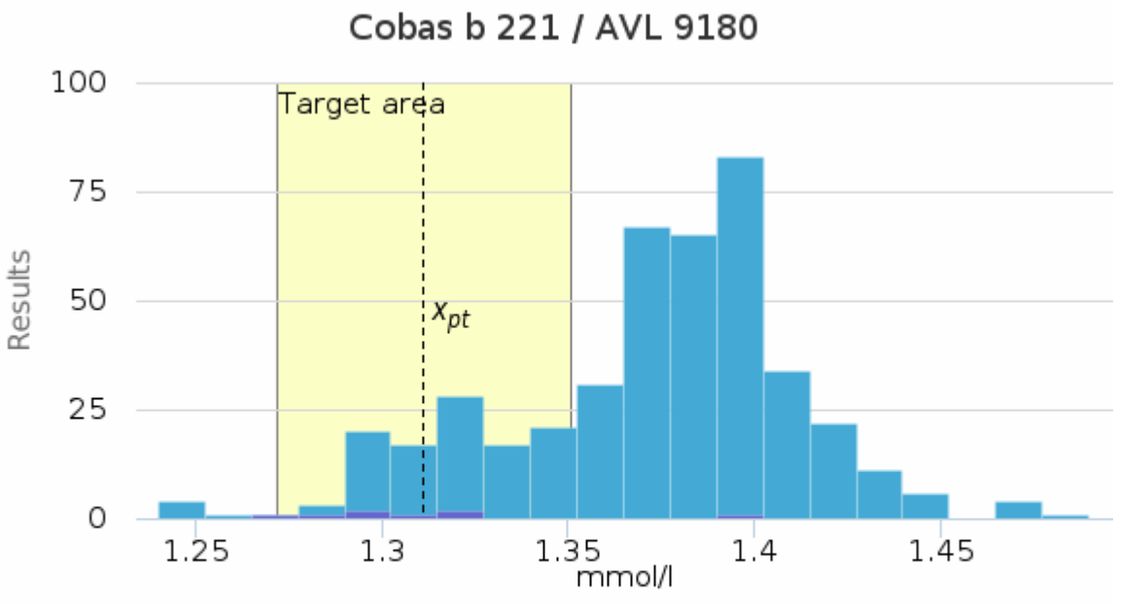


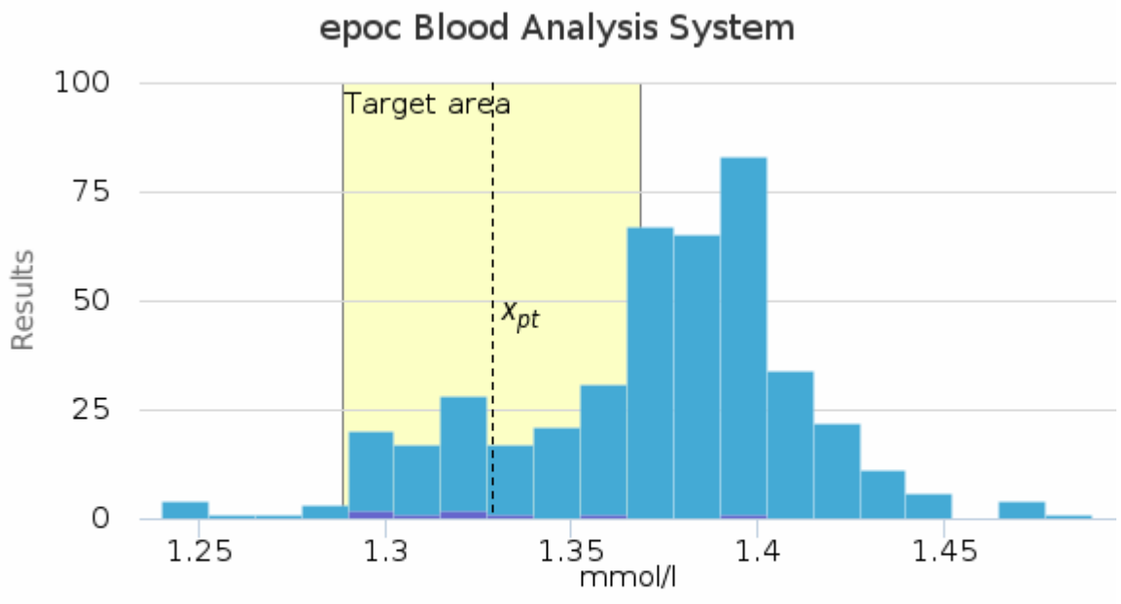






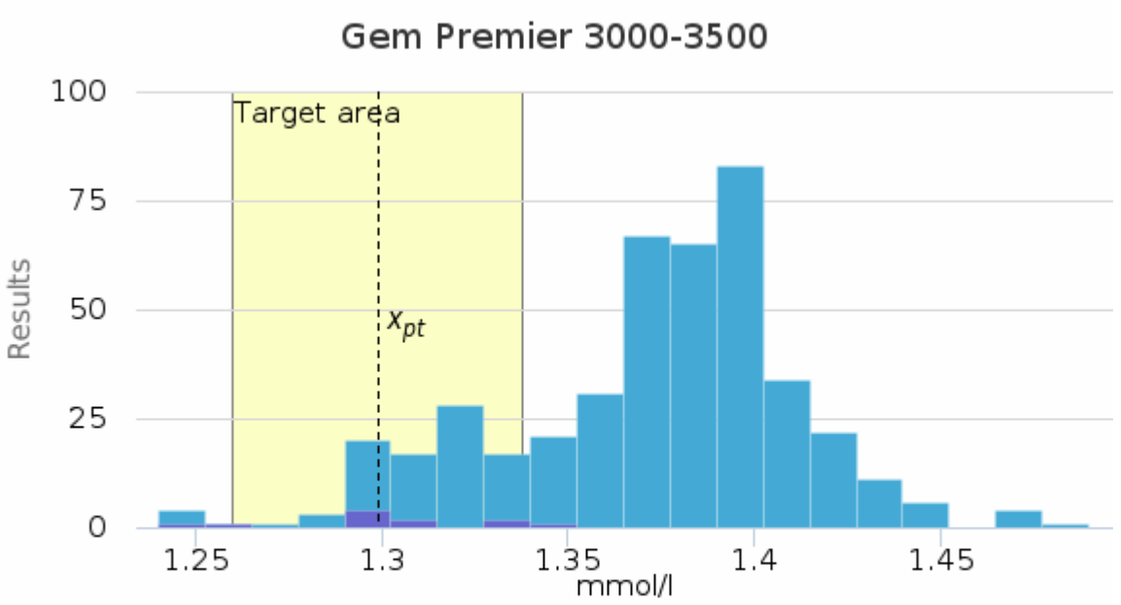
Acid-base status and electrolytes, February, 1-2023

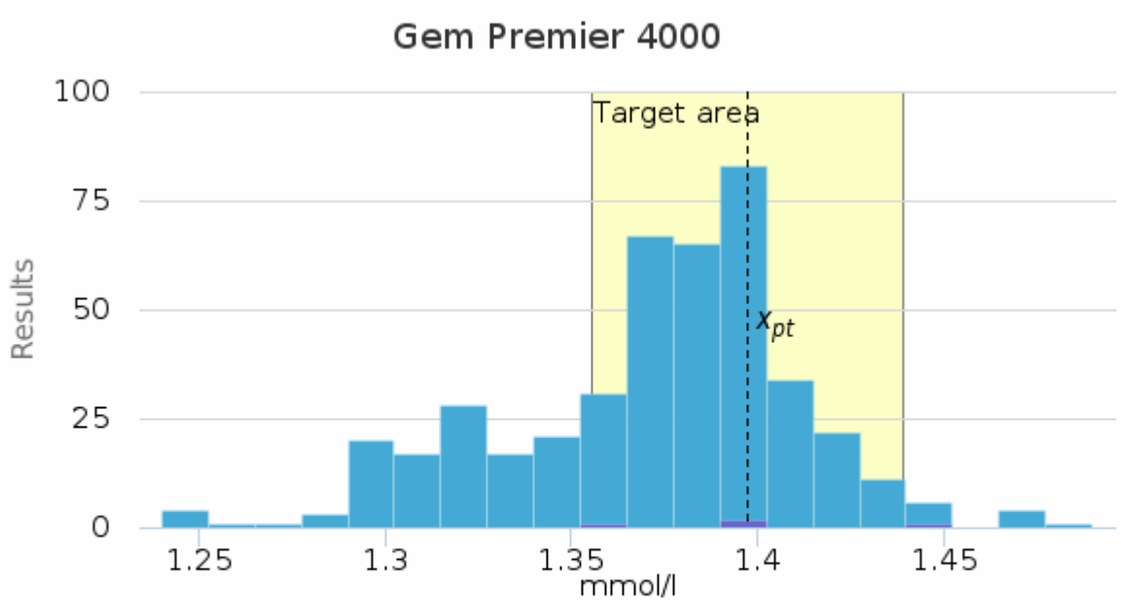




All method groups
Cobas b 221 / AVL 9180 (x_{pt}: 1.31 | Target area: 1.27-1.35 | Target: ±3%)

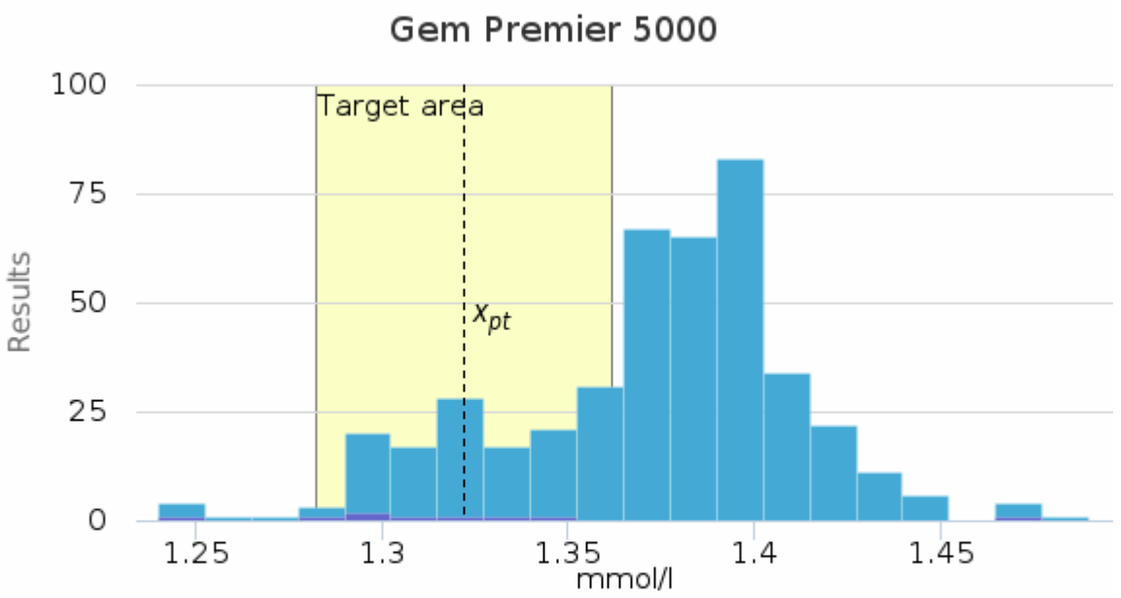
All method groups
epoc Blood Analysis System (x_{pt}: 1.33 | Target area: 1.29-1.37 | Target: ±3%)

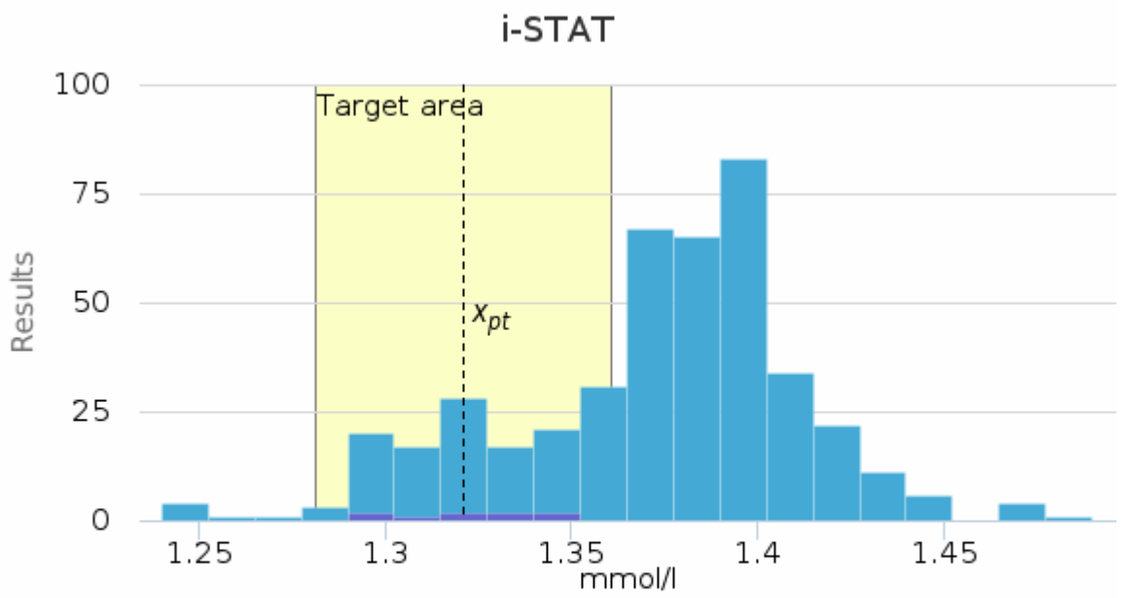




All method groups
Gem Premier 3000-3500 (x_{pt}: 1.30 | Target area: 1.26-1.34 | Target: ±3%)

All method groups
Gem Premier 4000 (x_{pt}: 1.40 | Target area: 1.36-1.44 | Target: ±3%)

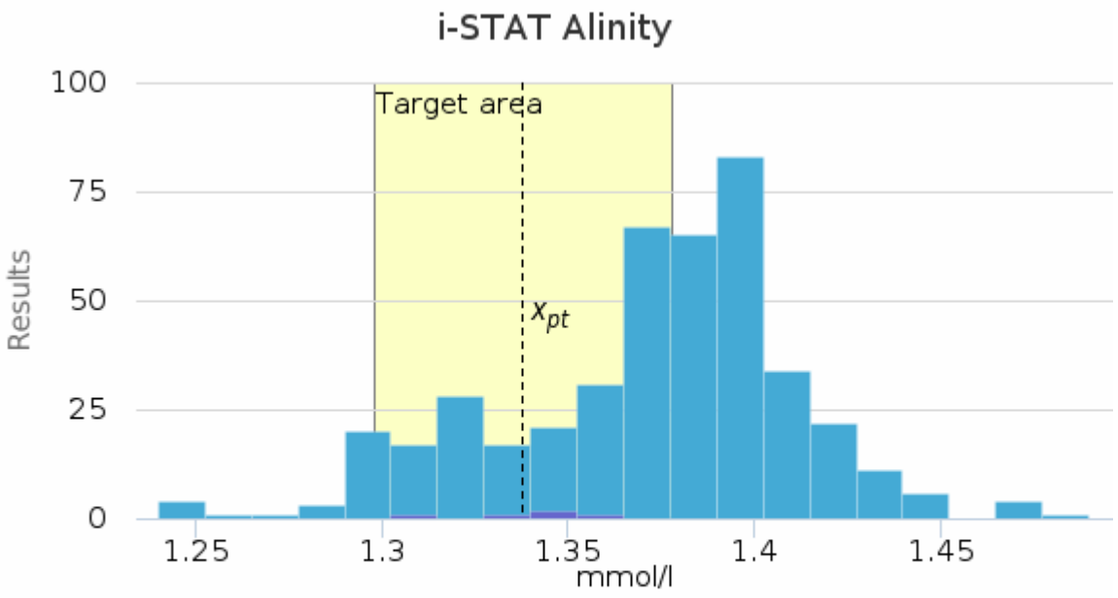


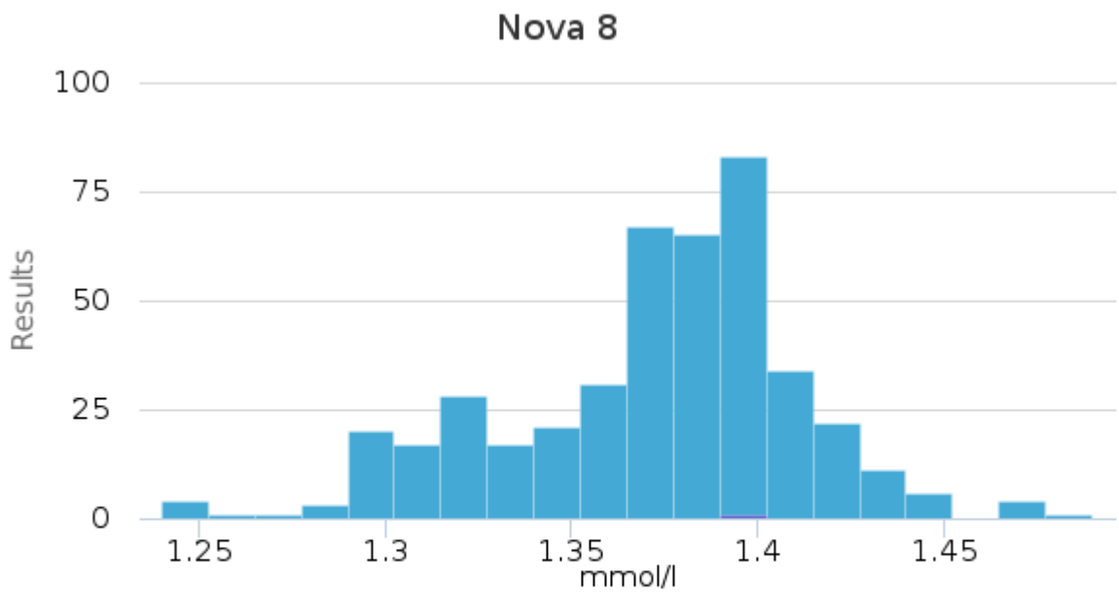


All method groups
Gem Premier 5000 (x_{pt}: 1.32 | Target area: 1.28-1.36 | Target: ±3%)

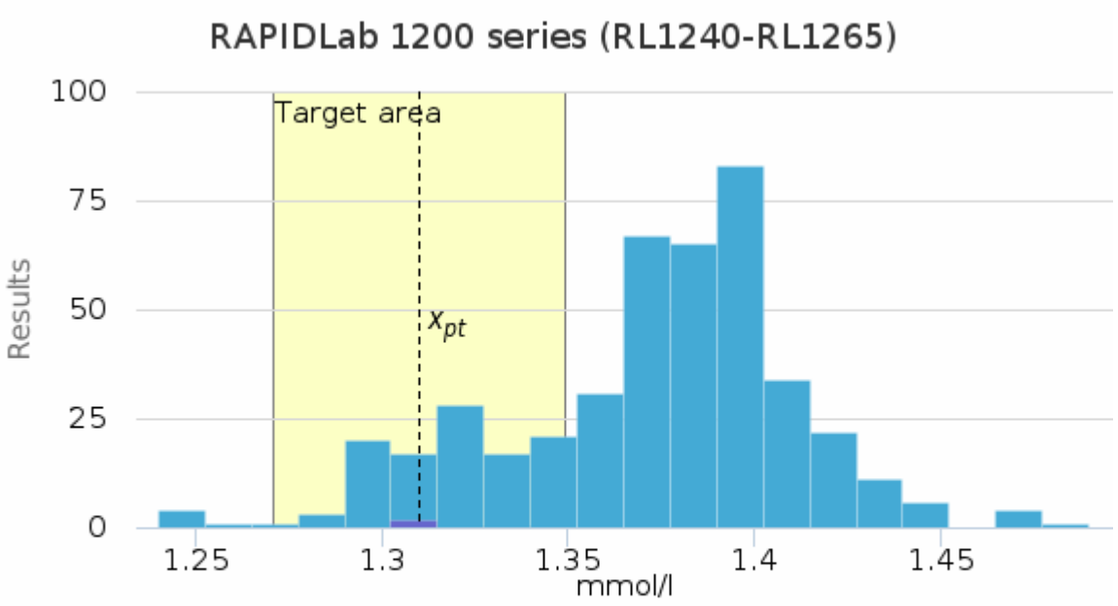
All method groups
i-STAT (x_{pt}: 1.32 | Target area: 1.28-1.36 | Target: ±3%)

Acid-base status and electrolytes, February, 1-2023



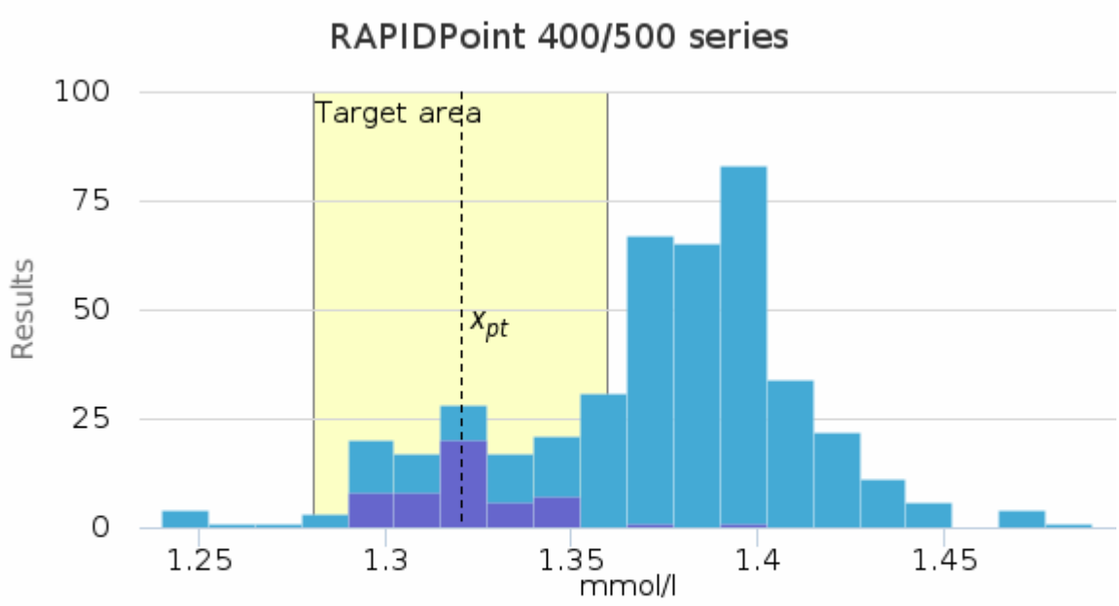


All method groups
i-STAT Alinity (x_{pt}: 1.34 | Target area: 1.30-1.38 | Target: ±3%)



All method groups
RAPIDLab 1200 series (RL1240-RL1265) (x_{pt}: 1.31 | Target area: 1.27-1.35 | Target: ±3%)

All method groups
Nova 8

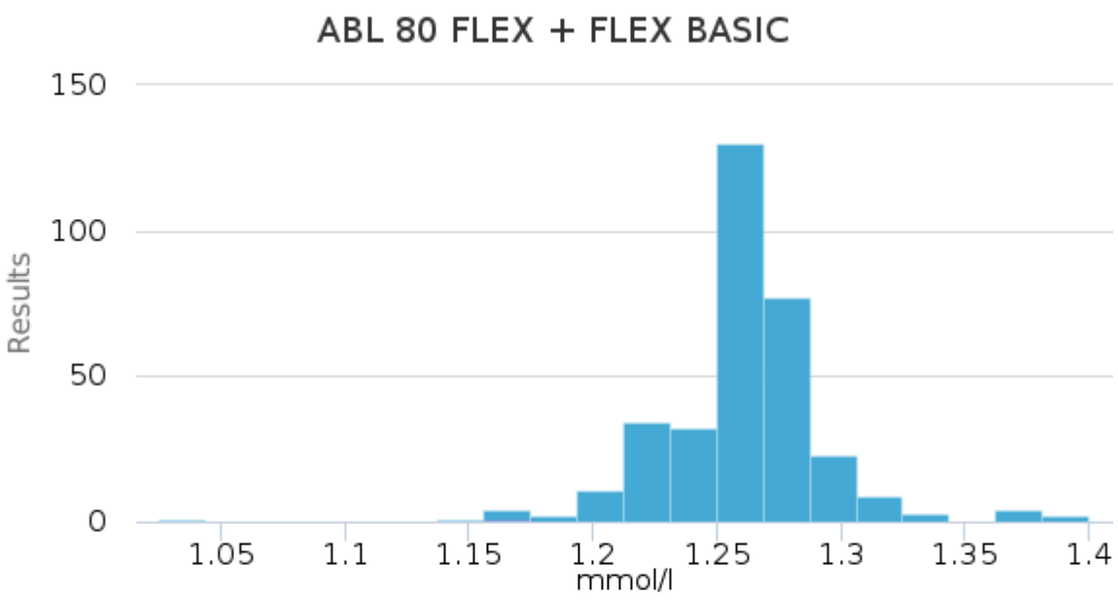


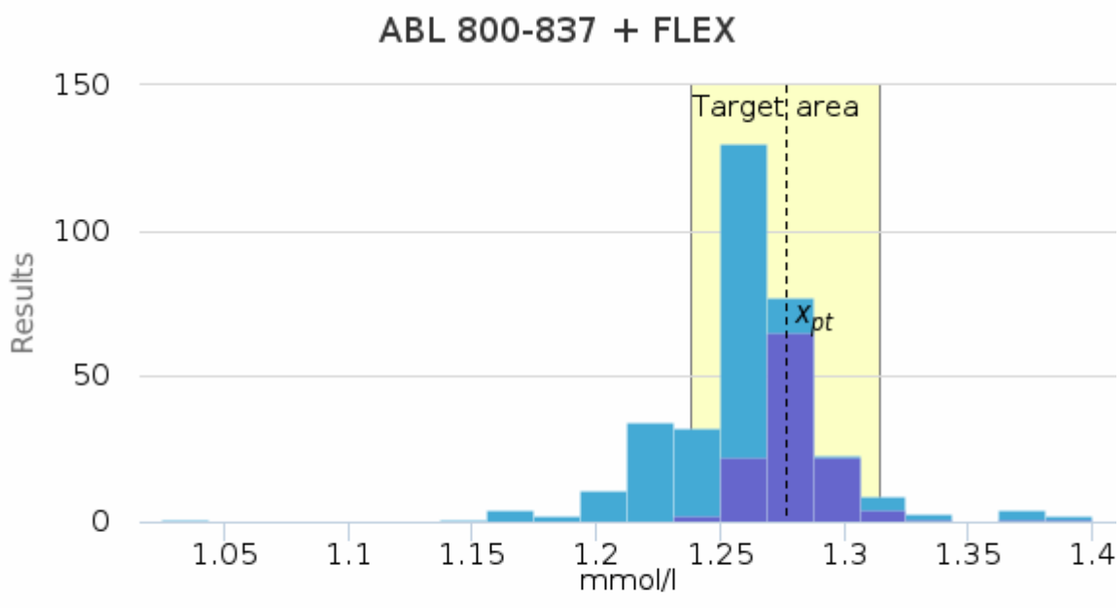
All method groups
RAPIDPoint 400/500 series (x_{pt}: 1.32 | Target area: 1.28-1.36 | Target: ±3%)

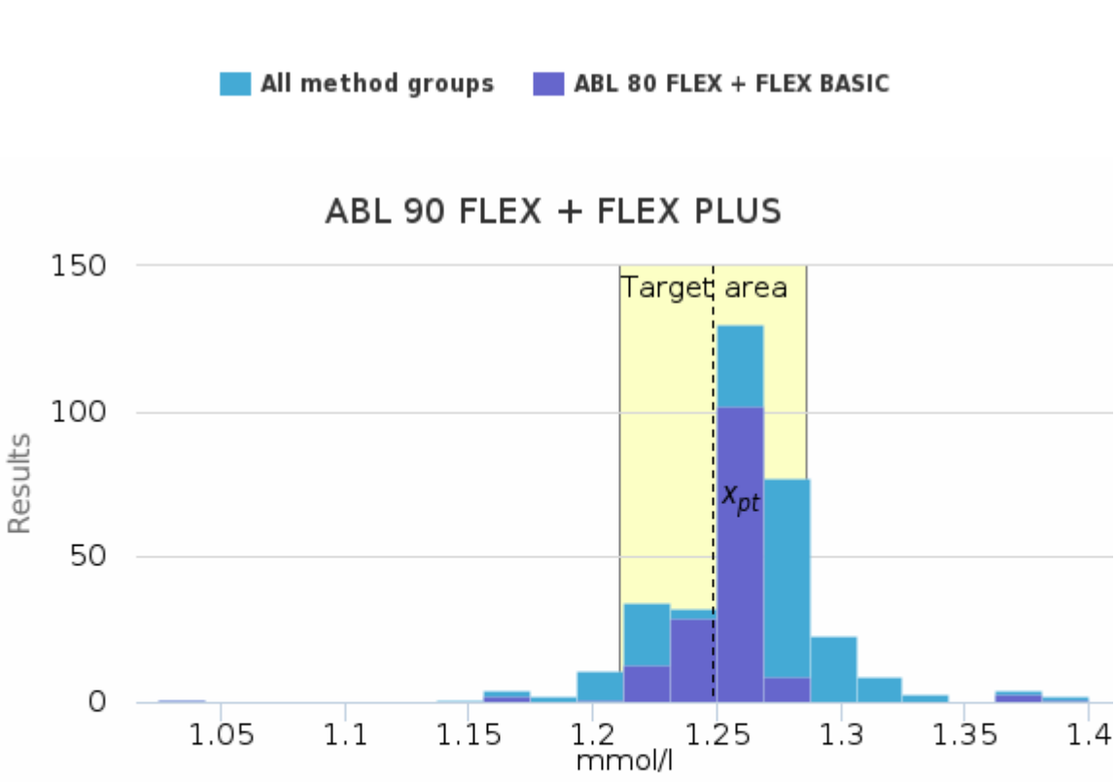
Sample S001 | Ca-ion adjusted, mmol/l

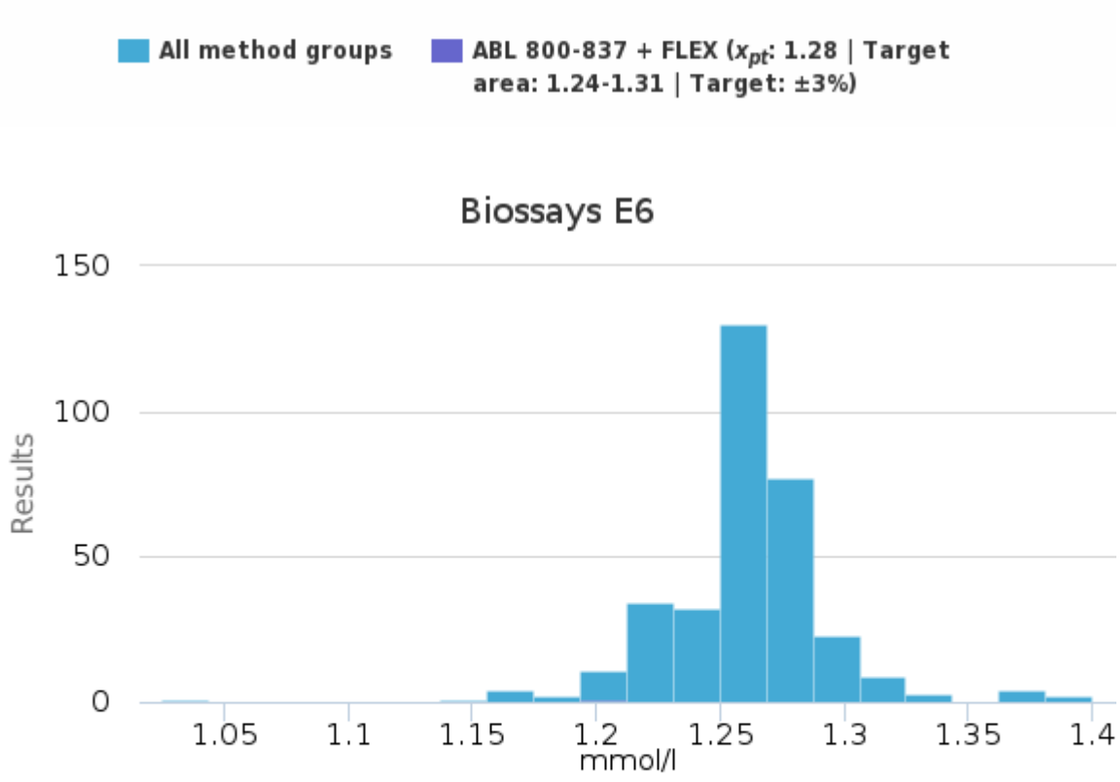
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	-	-	-	-	-	1.16	1.16	-	1
ABL 800-837 + FLEX	1.28	1.28	0.02	1.2	<0.01	1.24	1.33	2	118
ABL 90 FLEX + FLEX PLUS	1.25	1.25	0.01	1.2	<0.01	1.16	1.27	5	161
Biossays E6	-	-	-	-	-	1.20	1.20	-	1
Cobas b 221 / AVL 9180	1.20	1.20	0.02	1.4	<0.01	1.17	1.21	-	5
Gem Premier 3000-3500	-	-	-	-	-	1.27	1.27	-	1
Gem Premier 4000	1.31	1.31	<0.01	<0.1	<0.01	1.31	1.31	-	2
Gem Premier 5000	1.23	1.22	0.03	2.2	<0.01	1.19	1.27	-	8
Konelab	-	-	-	-	-	1.22	1.22	-	1
Nova 8	-	-	-	-	-	1.30	1.30	-	1
RAPIDLab 1200 series (RL1240-RL1265)	1.20	1.22	0.04	3.7	0.03	1.15	1.23	-	3
RAPIDPoint 400/500 series	1.25	1.23	0.04	3.1	<0.01	1.20	1.34	-	31
All	**1.26**	**1.26**	**0.03**	**2.1**	**<0.01**	**1.16**	**1.34**	**8**	**333**

Sample S001 | Ca-ion adjusted, mmol/l| histogram summaries in LabScala

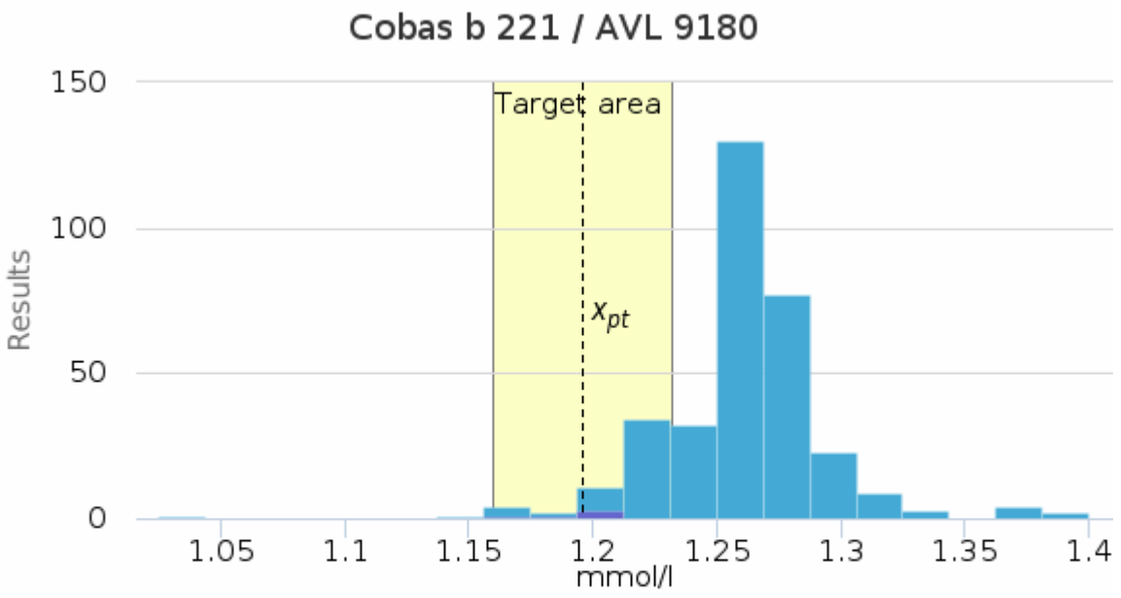


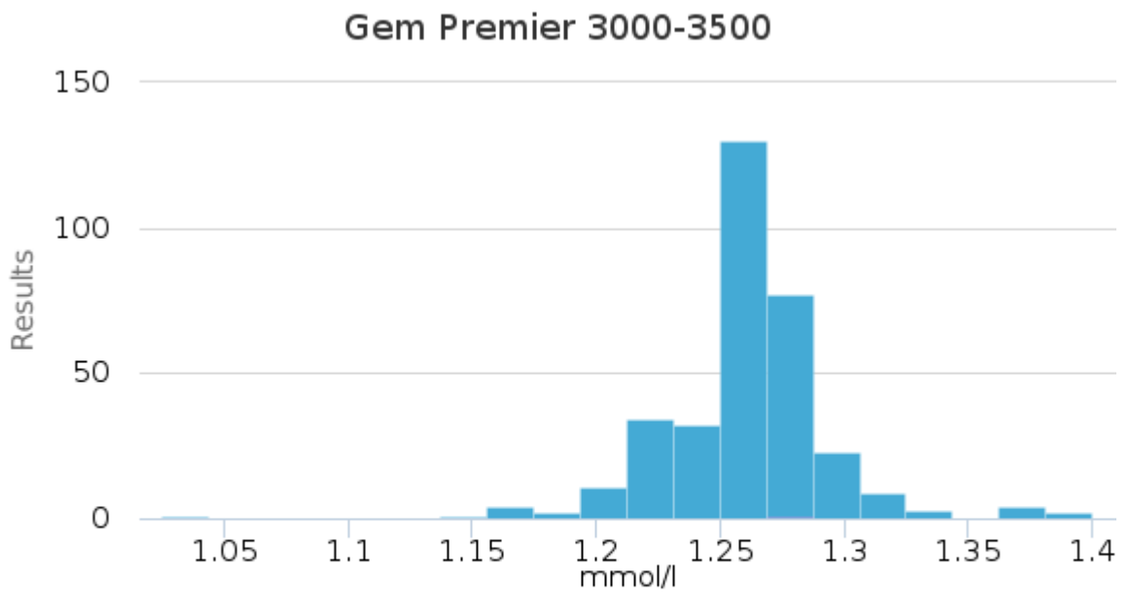


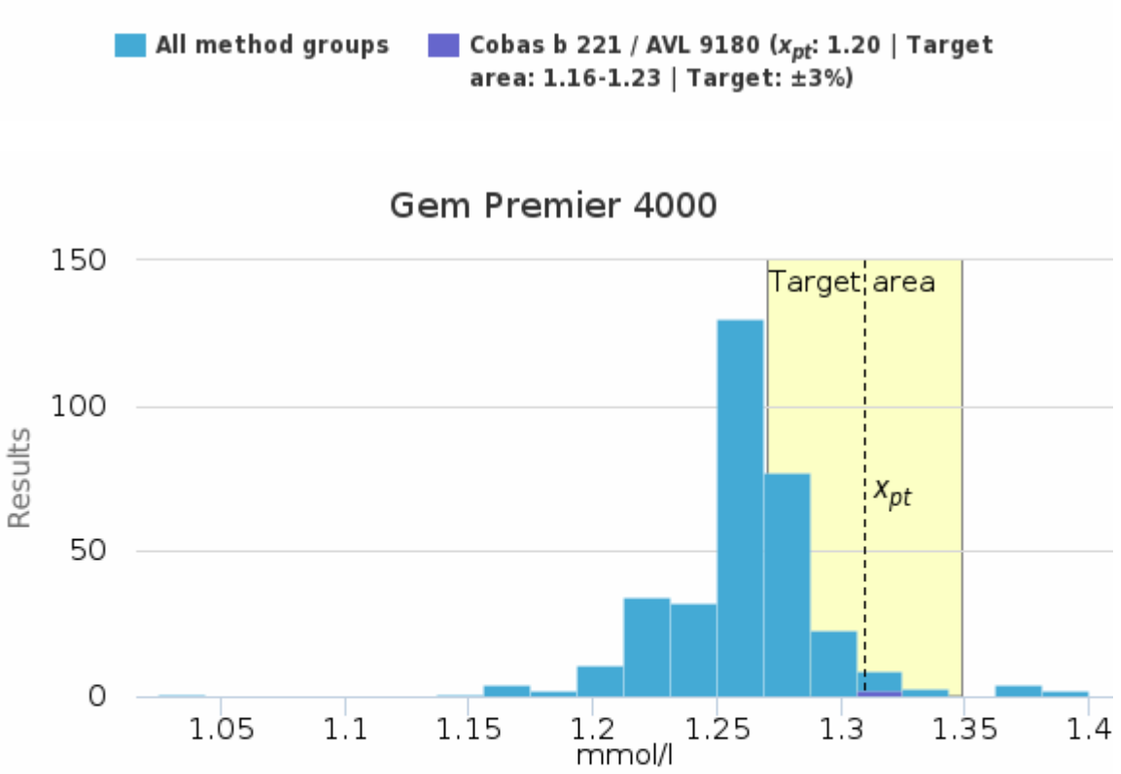


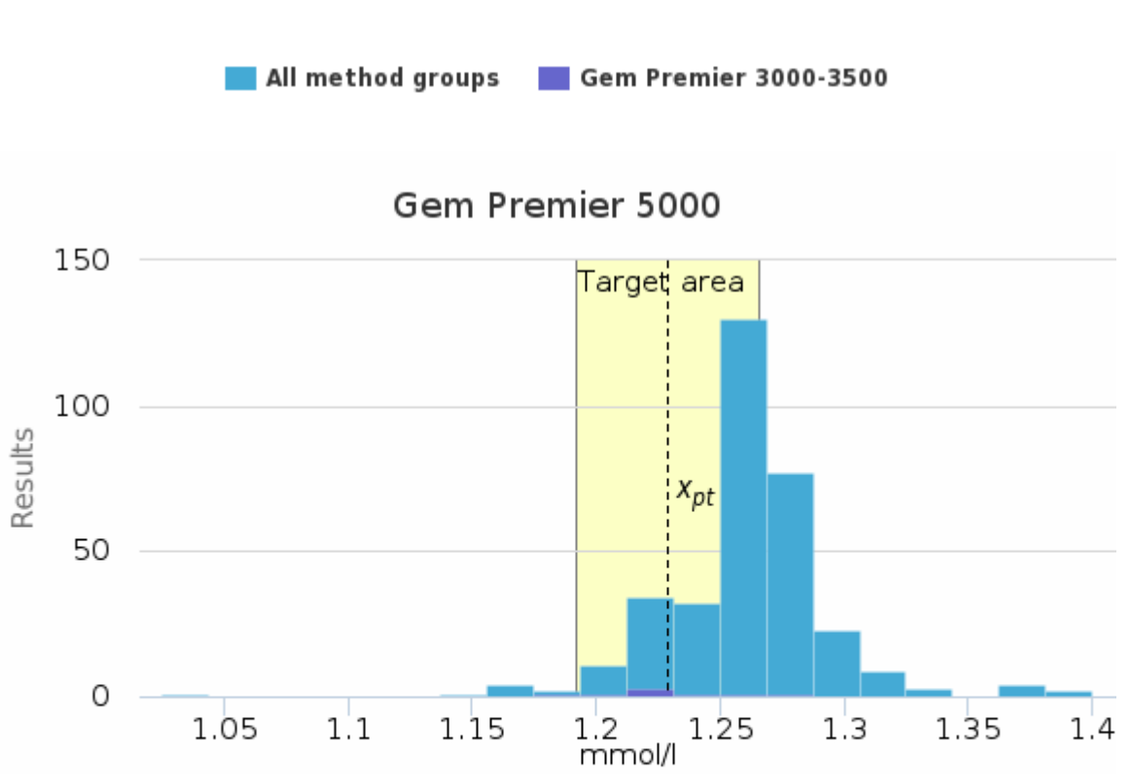


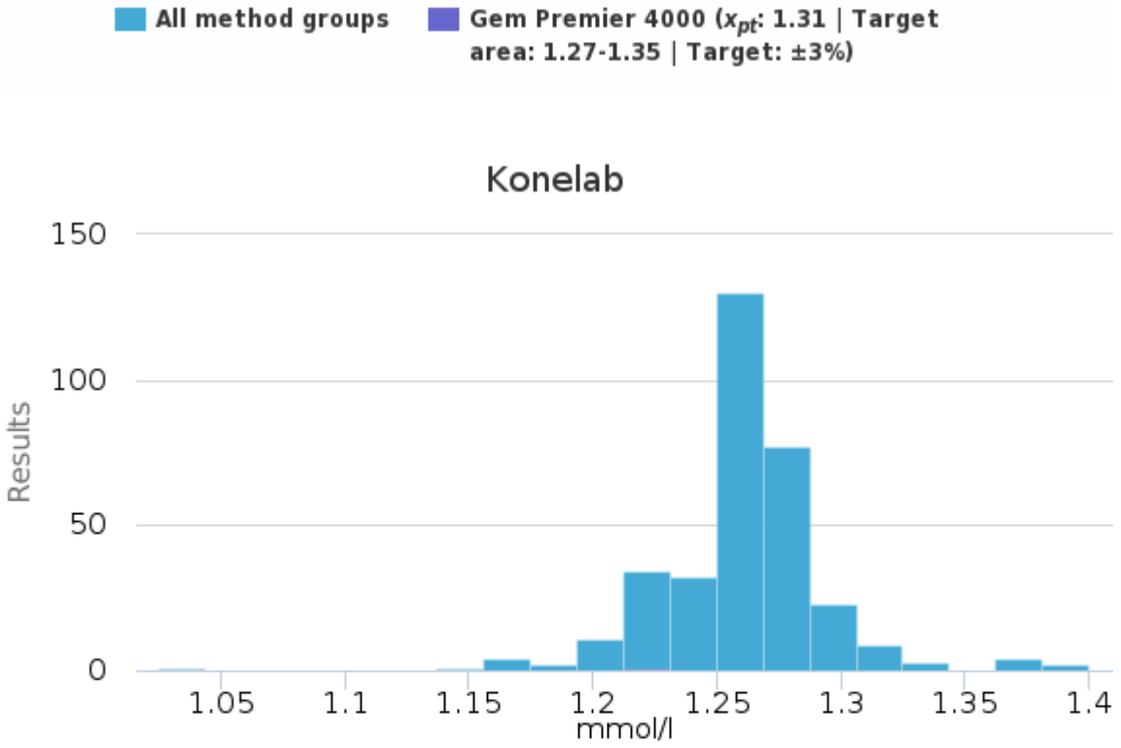
Acid-base status and electrolytes, February, 1-2023

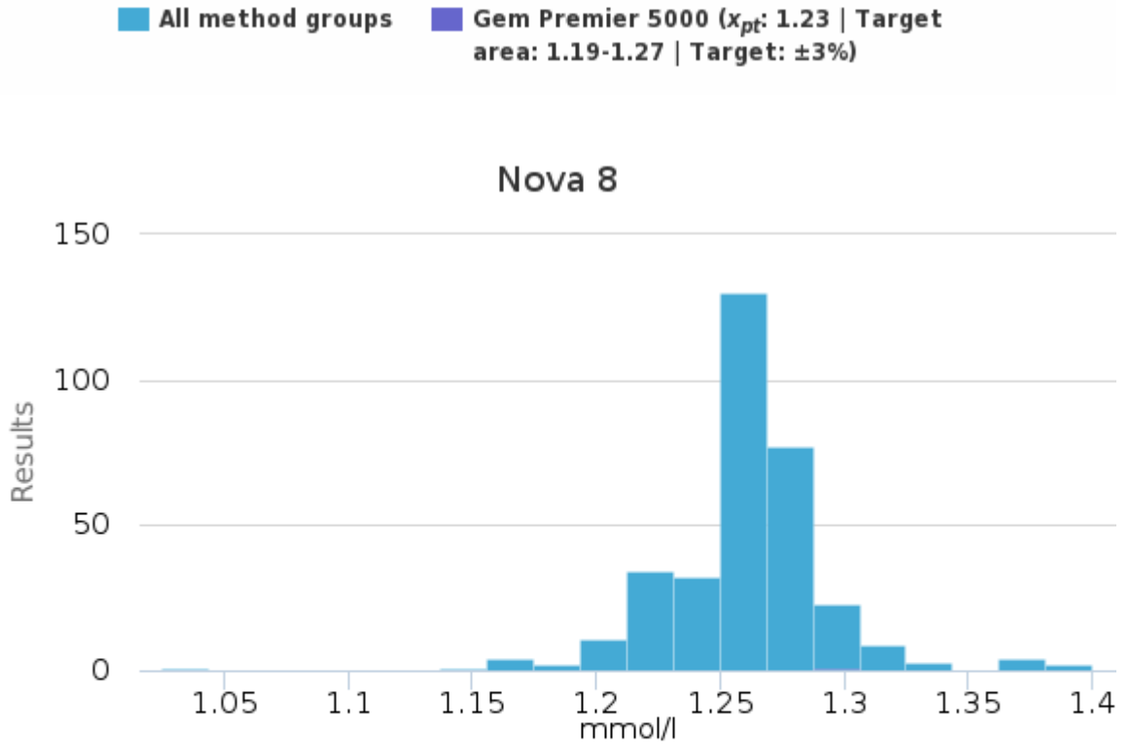




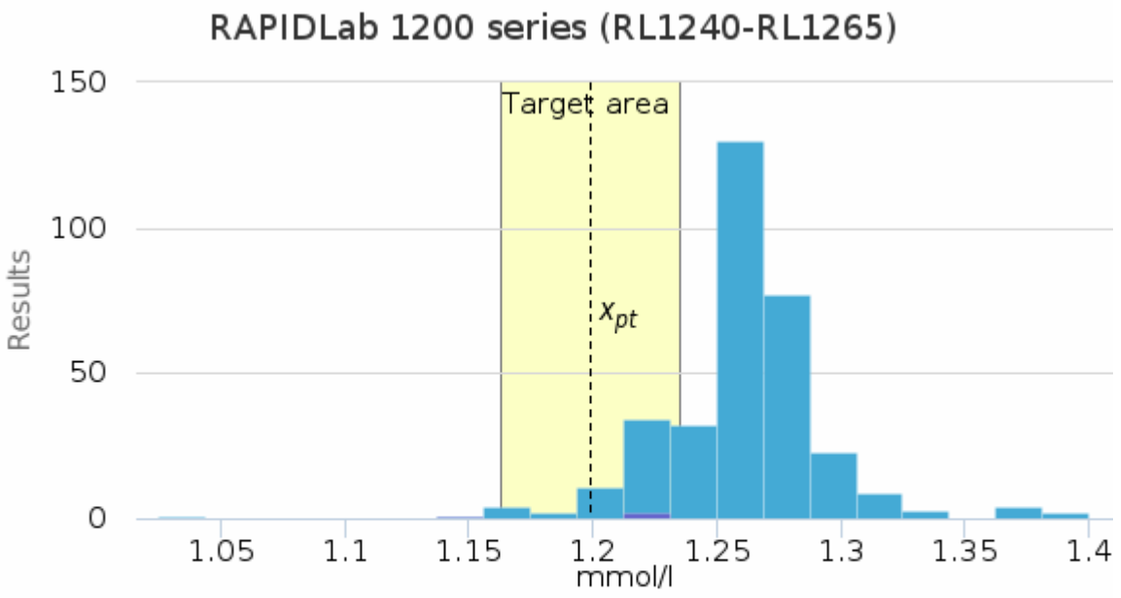


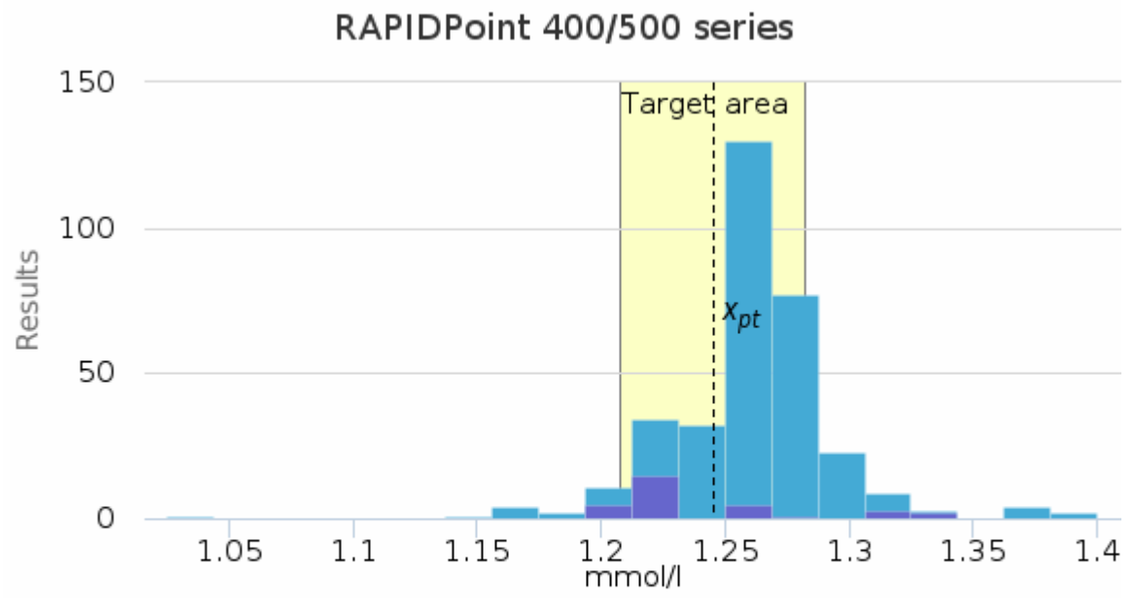






Acid-base status and electrolytes, February, 1-2023

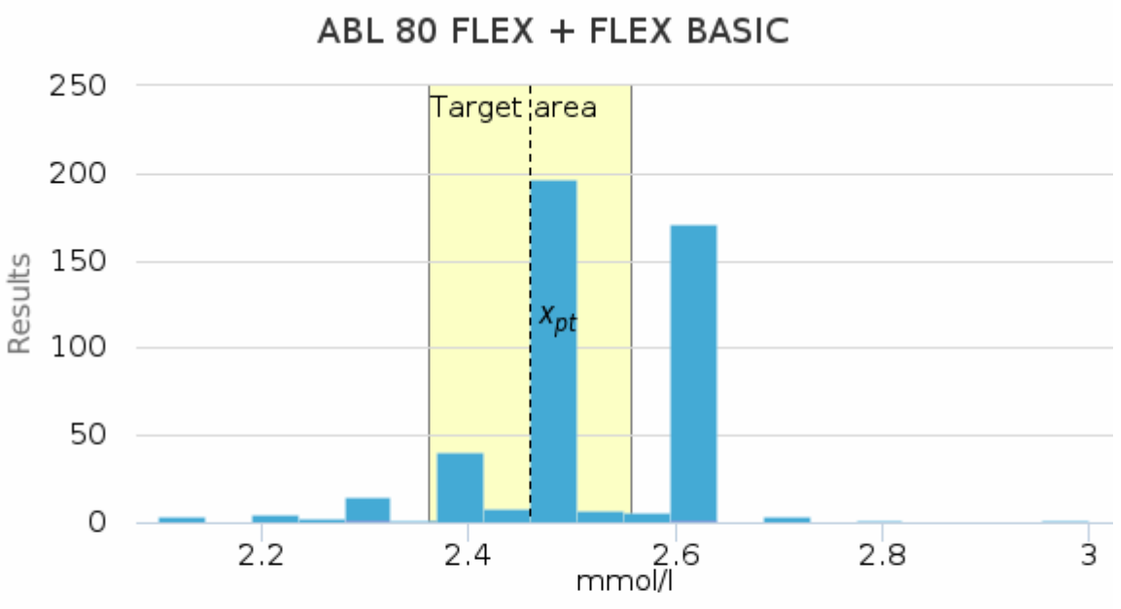


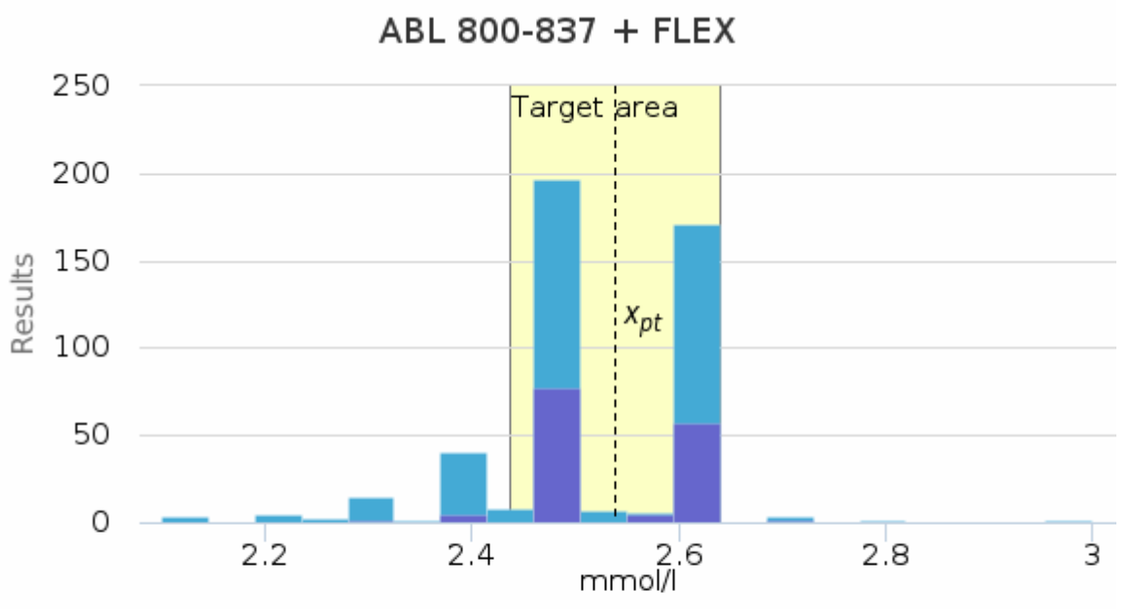


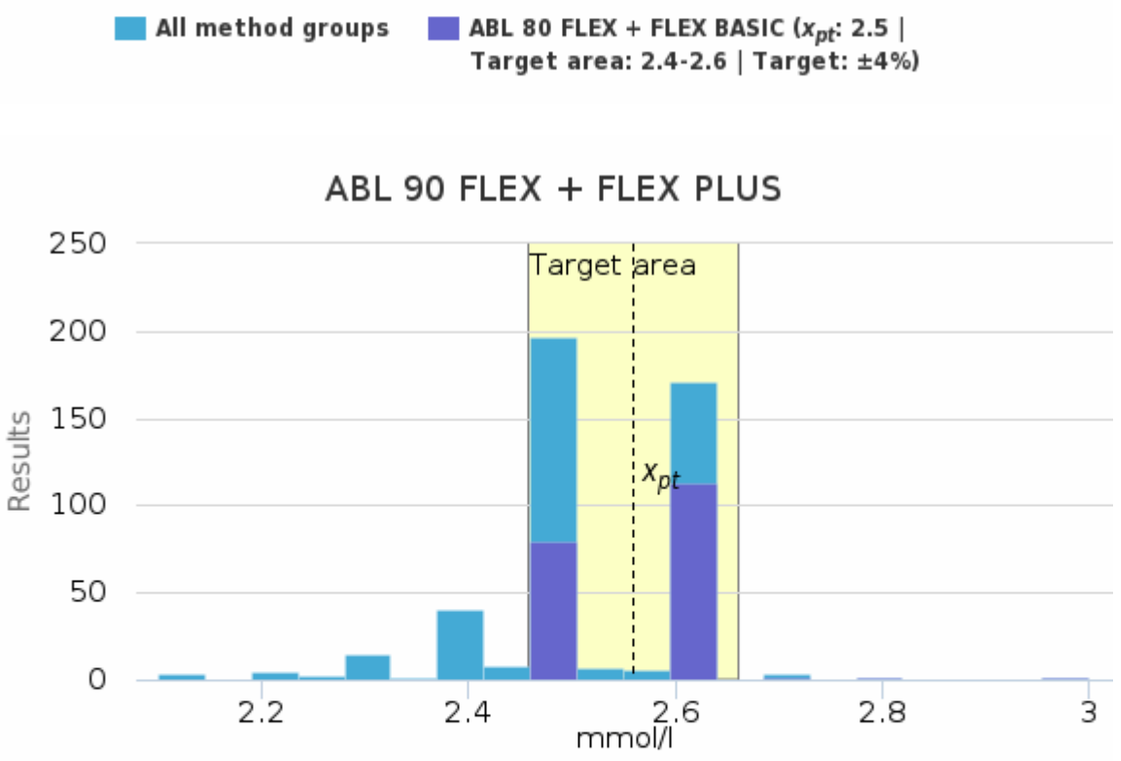
Sample S001 | K, mmol/l

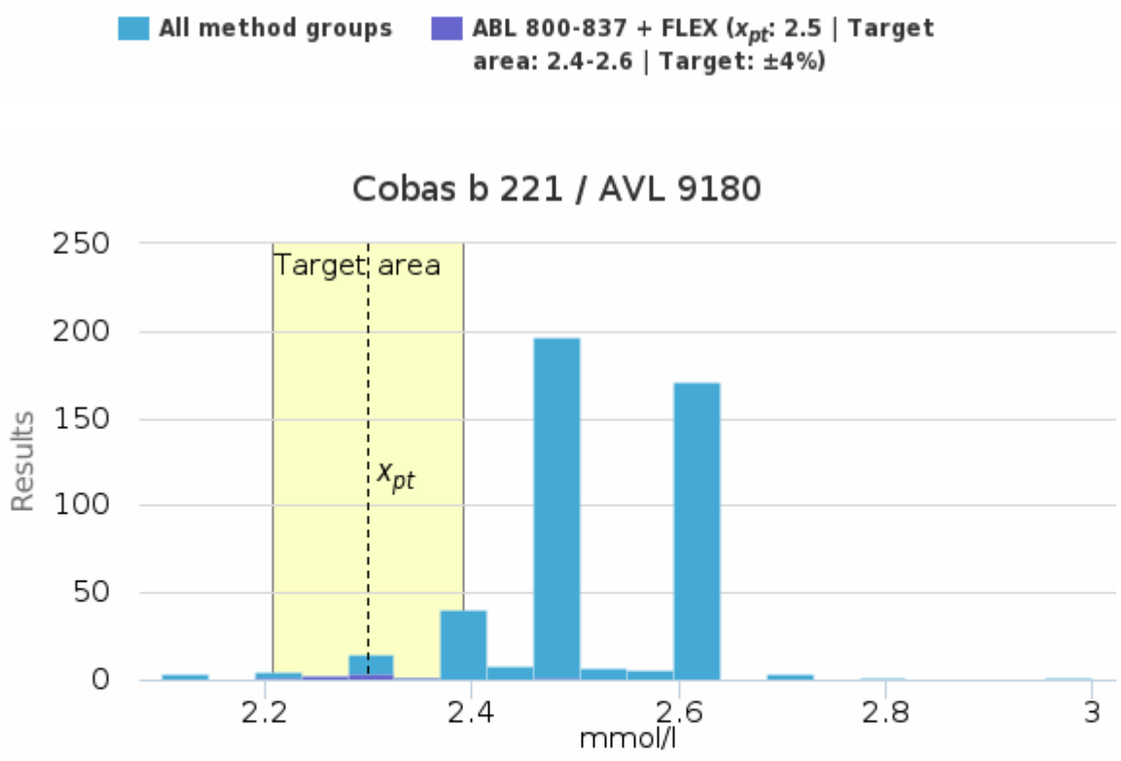
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	2.5	2.5	0.2	8.0	0.1	2.3	2.6	-	2
ABL 800-837 + FLEX	2.5	2.5	<0.1	2.2	<0.1	2.4	2.6	2	145
ABL 90 FLEX + FLEX PLUS	2.6	2.6	<0.1	2.0	<0.1	2.5	2.7	2	195
Cobas b 221 / AVL 9180	2.3	2.3	<0.1	3.8	<0.1	2.2	2.5	-	8
epoc Blood Analysis System	2.2	2.2	<0.1	4.1	<0.1	2.1	2.3	-	7
Gem Premier 3000-3500	2.4	2.4	<0.1	2.0	<0.1	2.3	2.4	-	11
Gem Premier 4000	2.4	2.4	<0.1	2.1	<0.1	2.3	2.4	-	4
Gem Premier 5000	2.3	2.3	<0.1	3.4	<0.1	2.2	2.4	-	9
Indiko Plus	-	-	-	-	-	2.5	2.5	-	1
i-STAT	2.4	2.4	<0.1	<0.1	<0.1	2.4	2.4	-	13
i-STAT Alinity	2.4	2.4	<0.1	<0.1	<0.1	2.4	2.4	-	7
RAPIDLab 1200 series (RL1240-RL1265)	2.5	2.5	<0.1	0.9	<0.1	2.4	2.5	-	2
RAPIDPoint 400/500 series	2.5	2.5	<0.1	1.2	<0.1	2.4	2.6	1	55
All	**2.5**	**2.5**	**<0.1**	**3.2**	**<0.1**	**2.3**	**2.7**	**10**	**459**

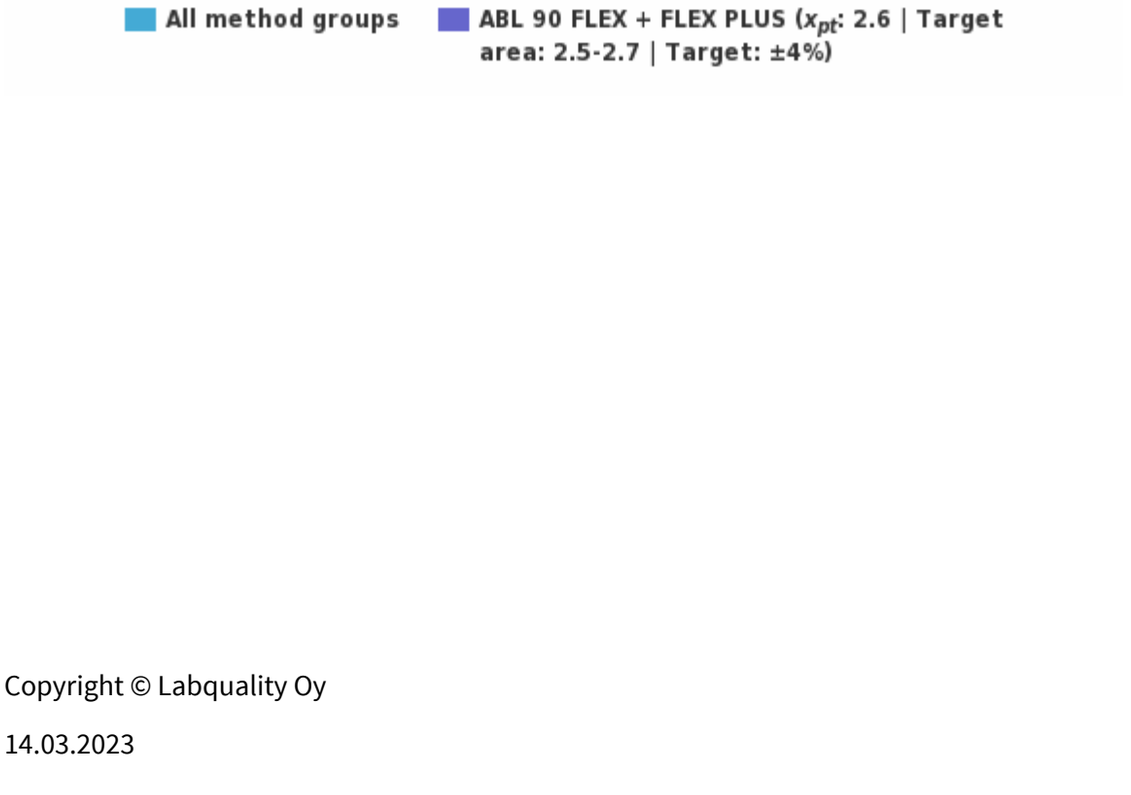
Sample S001 | K, mmol/l| histogram summaries in LabScala

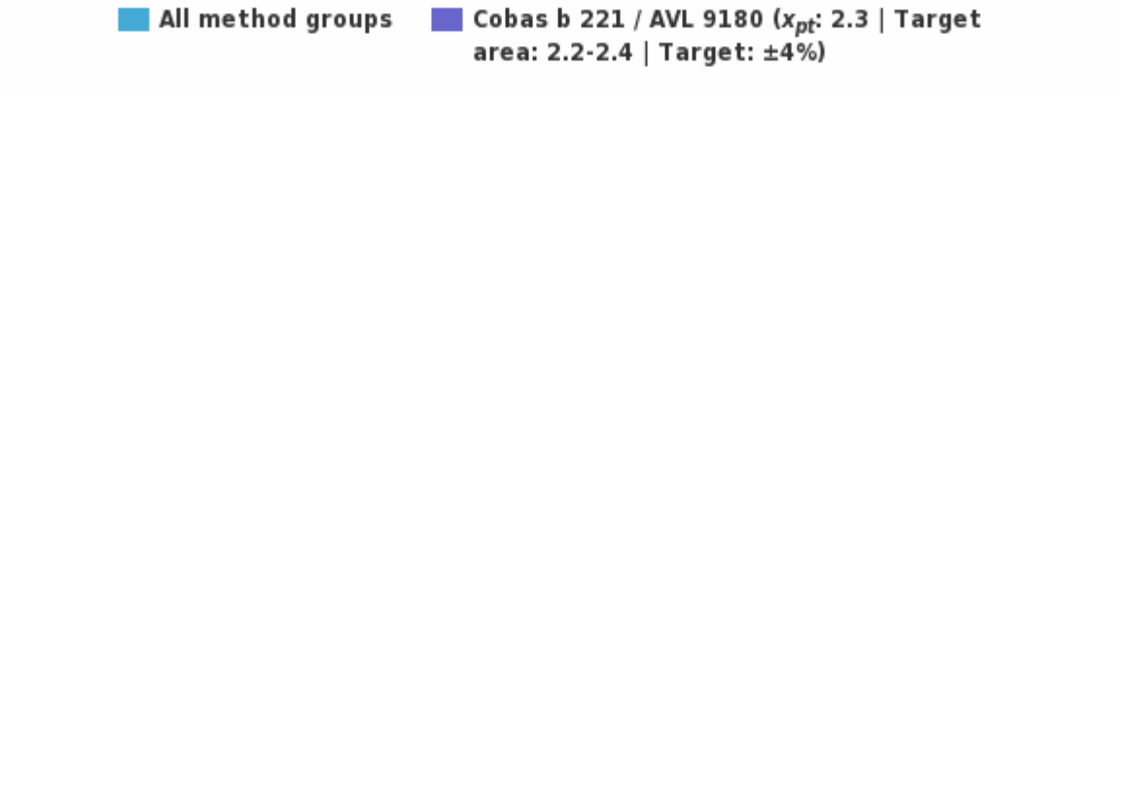




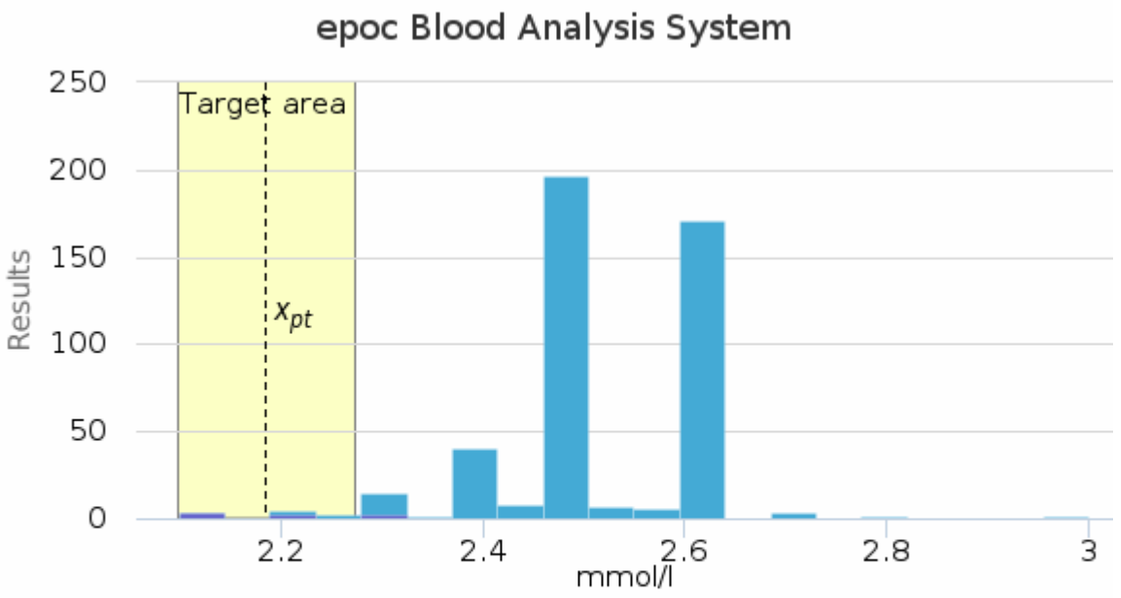


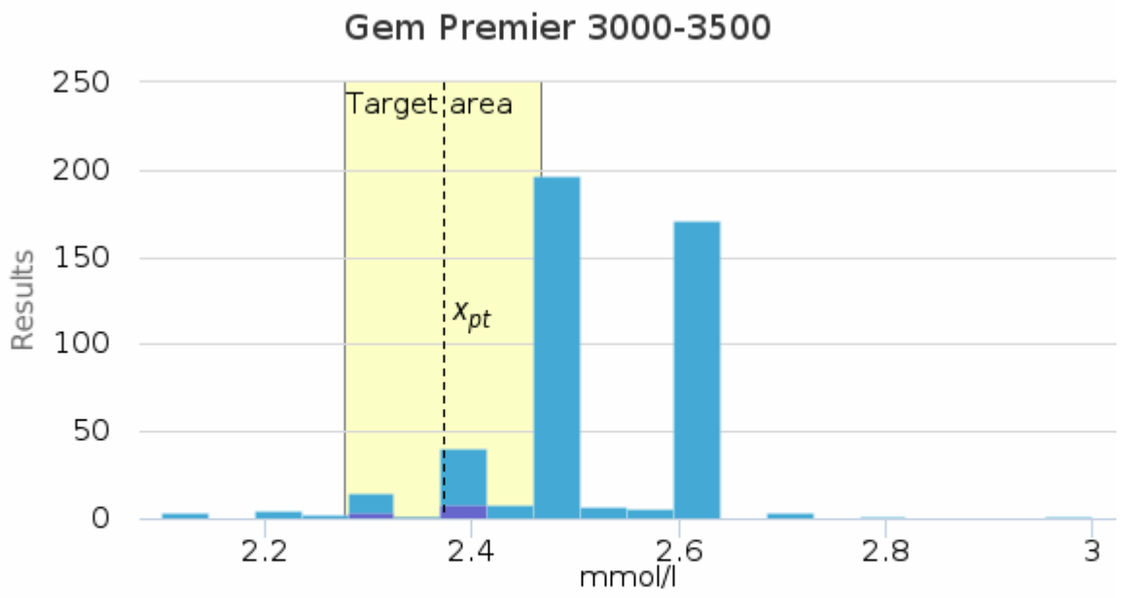


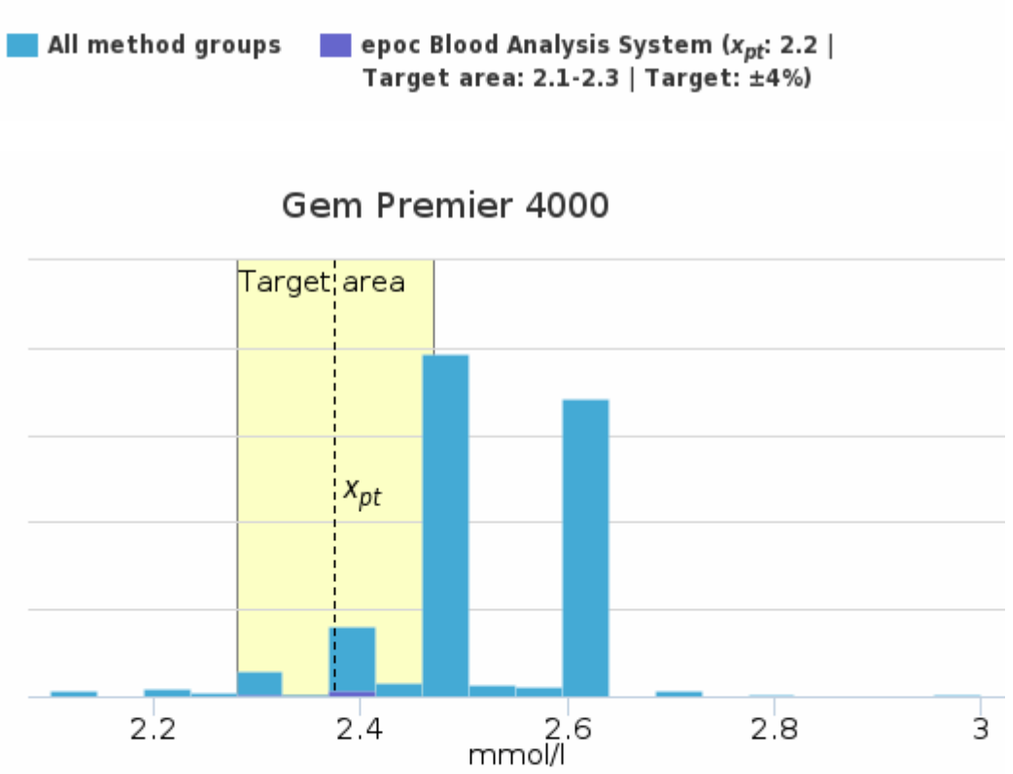


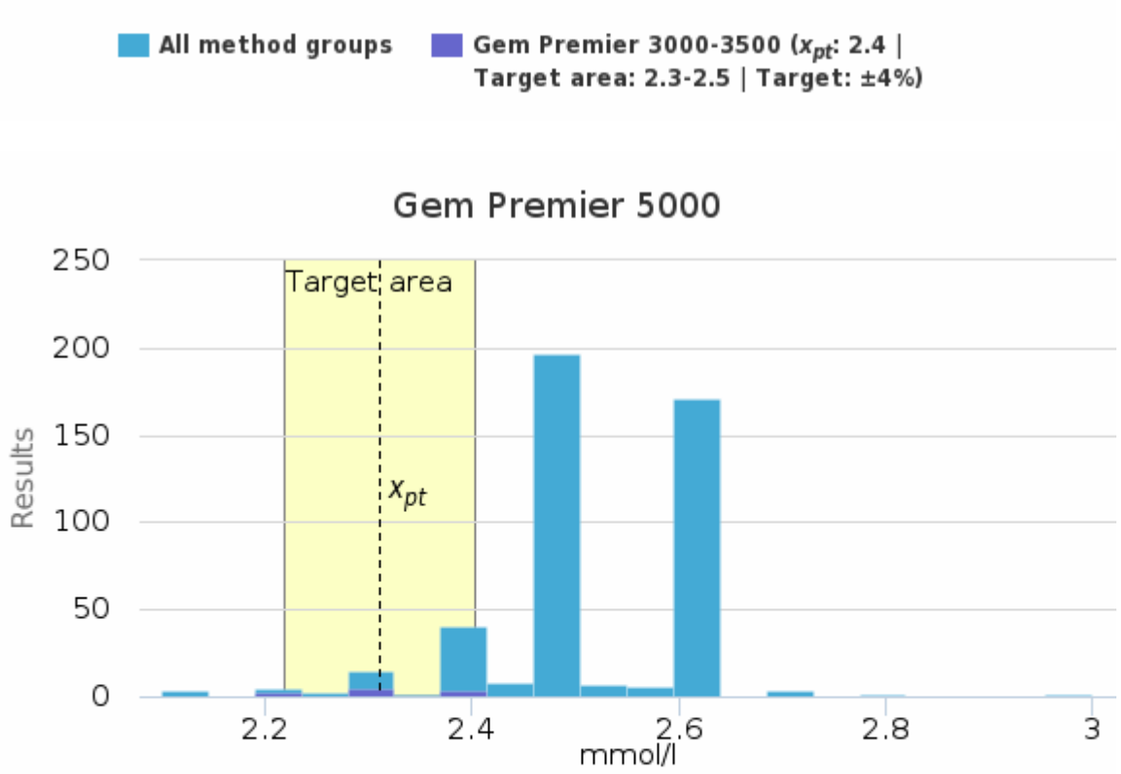


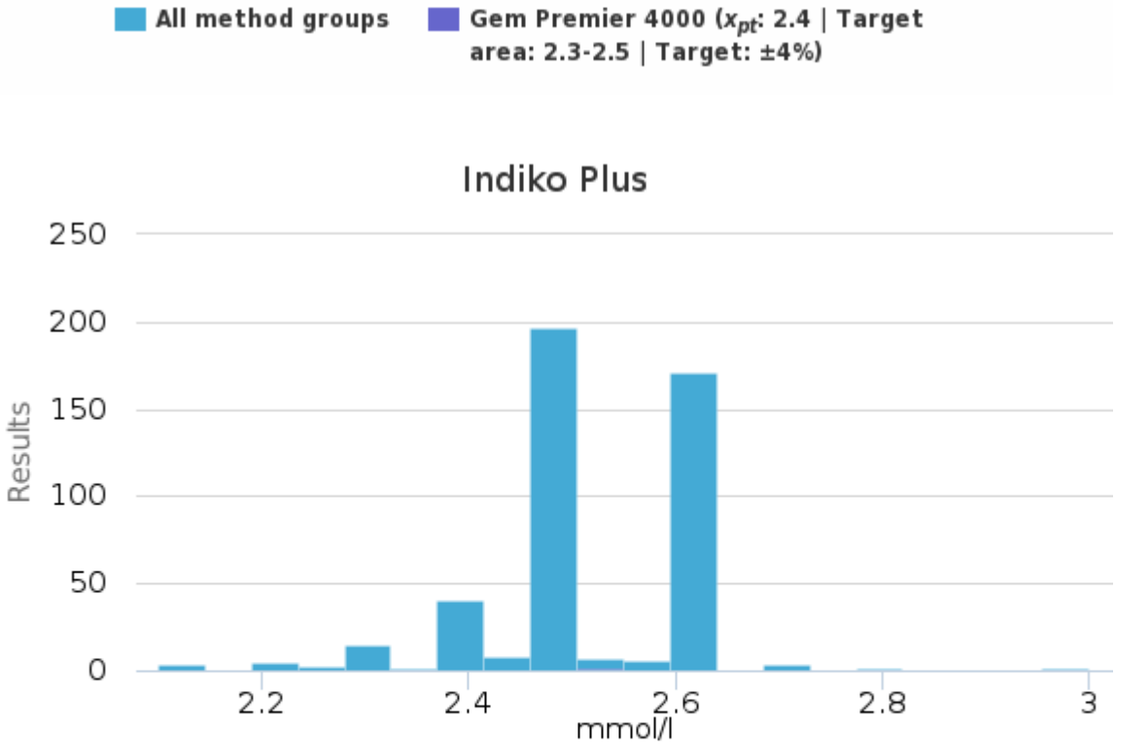
Acid-base status and electrolytes, February, 1-2023

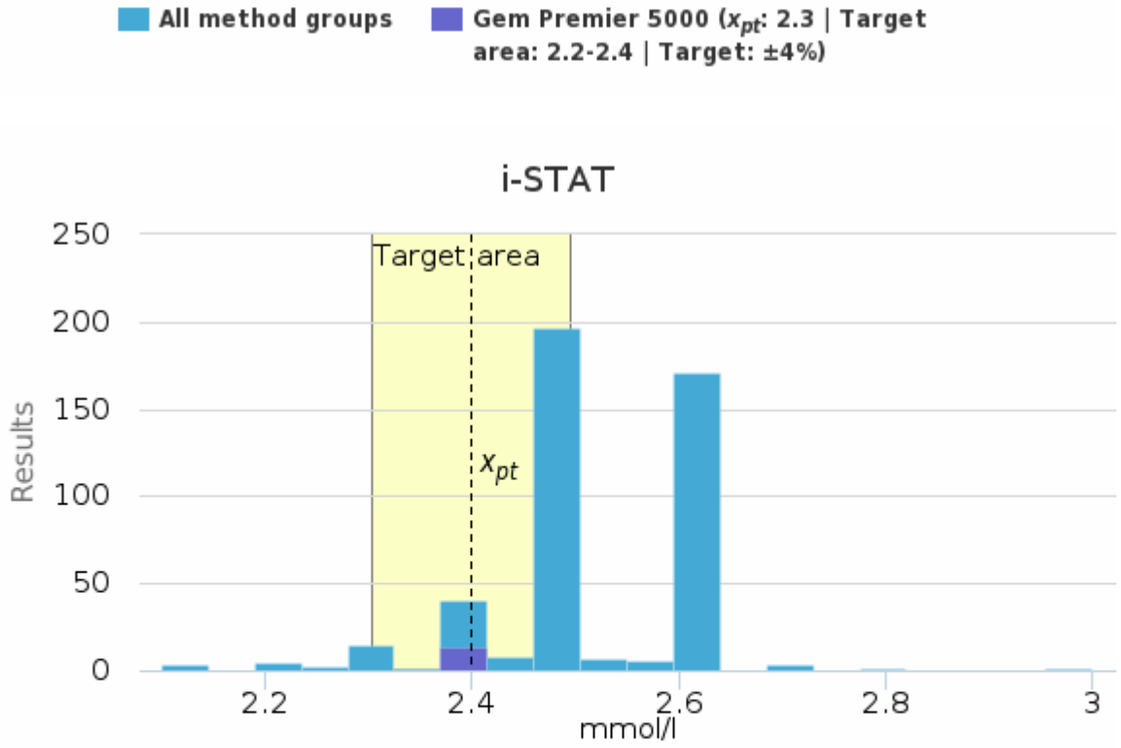


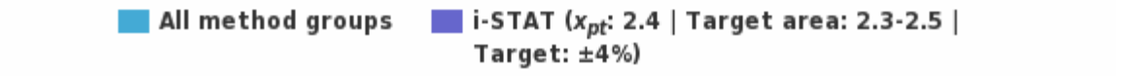




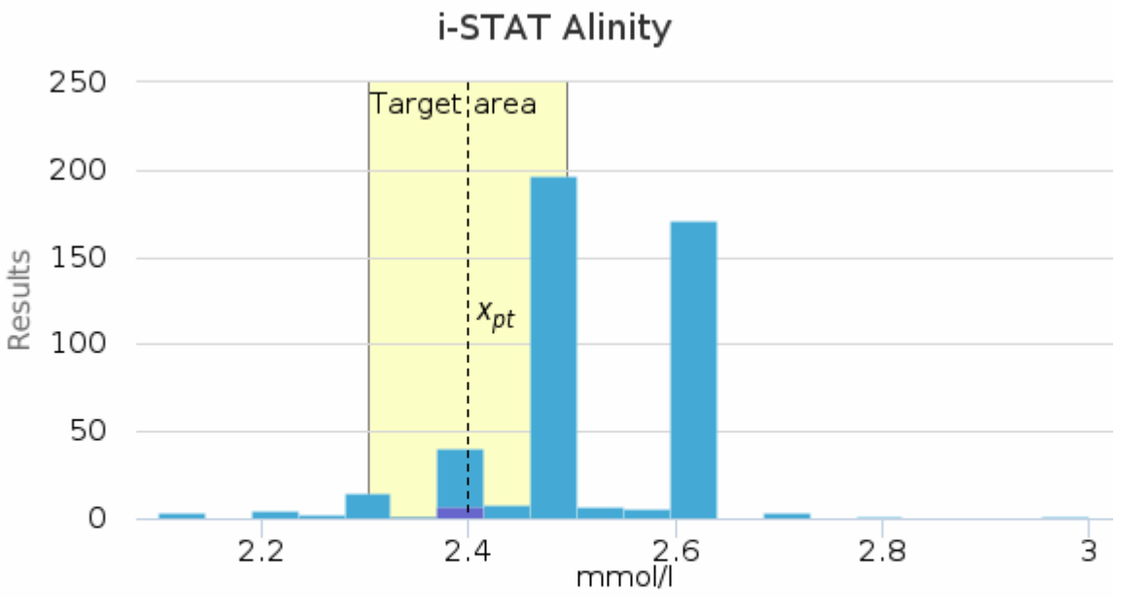


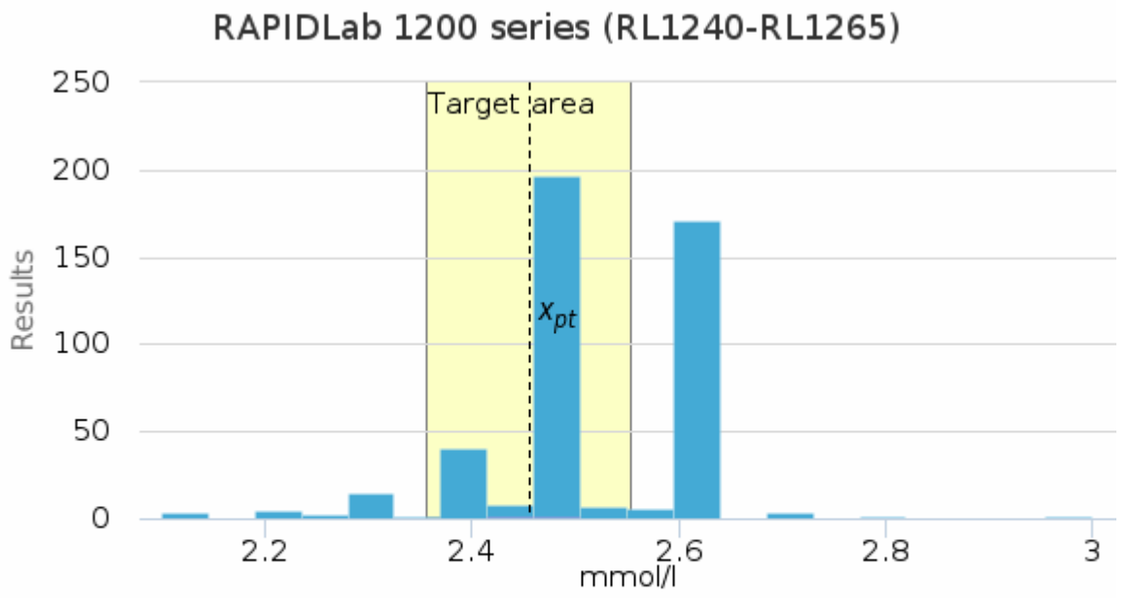


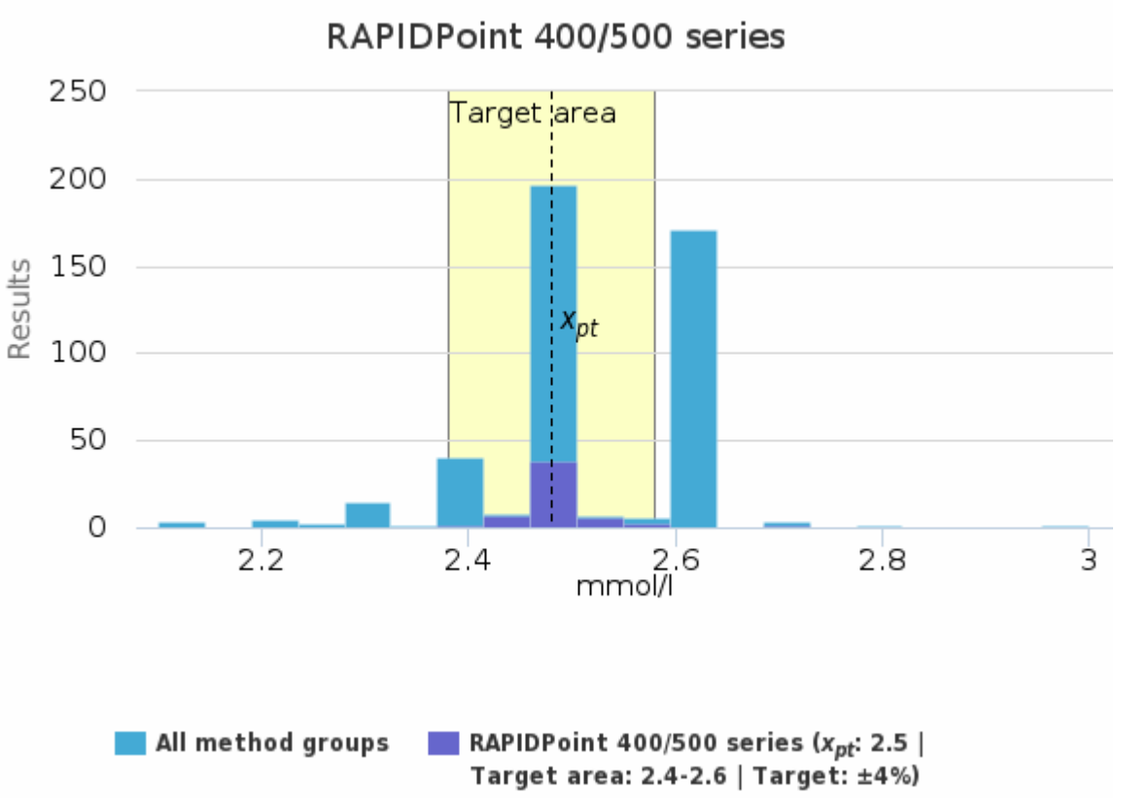




Acid-base status and electrolytes, February, 1-2023



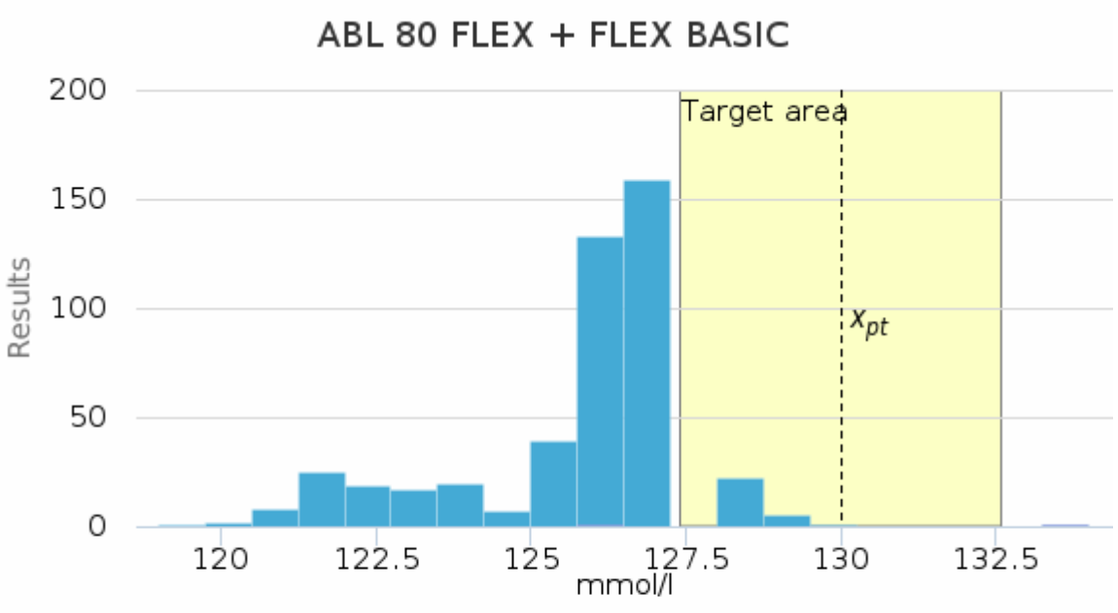


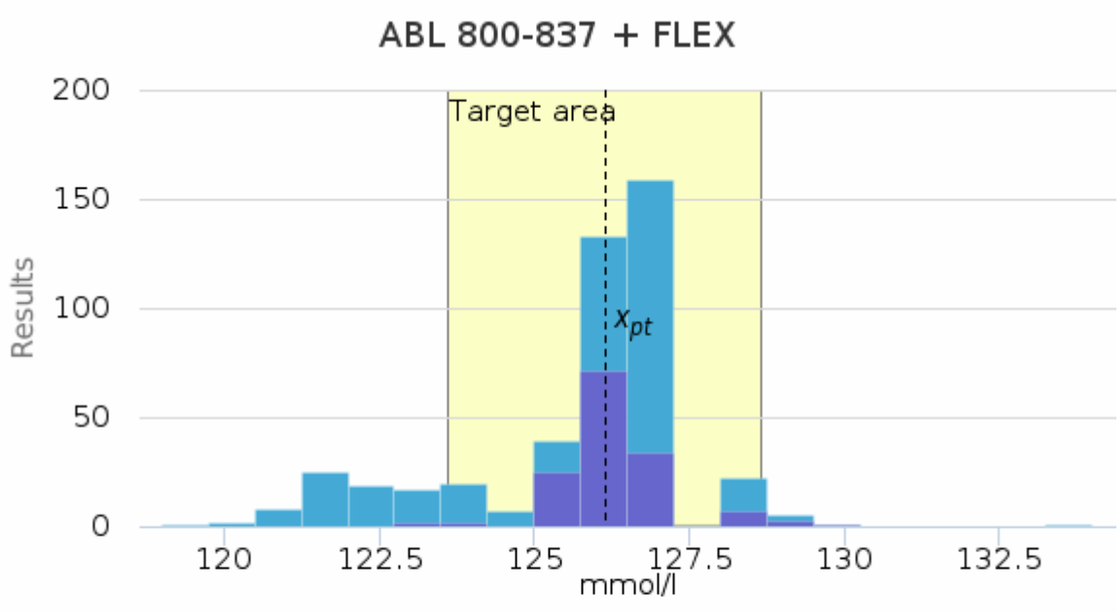


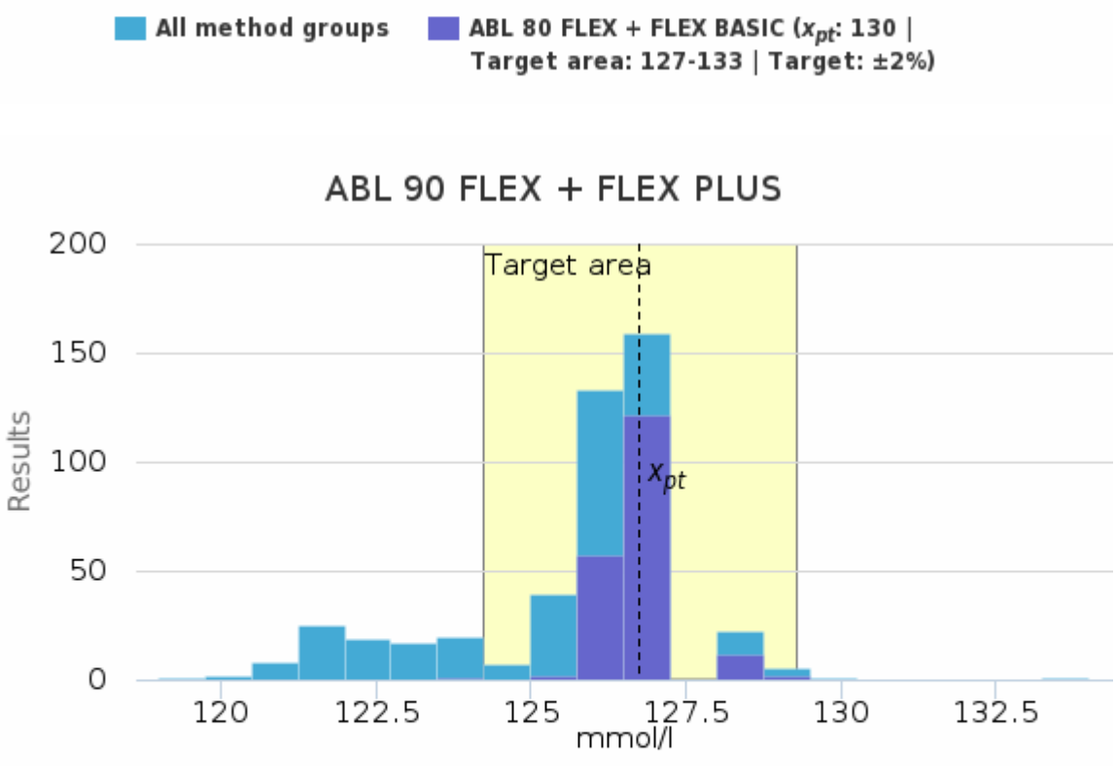
Sample S001 | Na, mmol/l

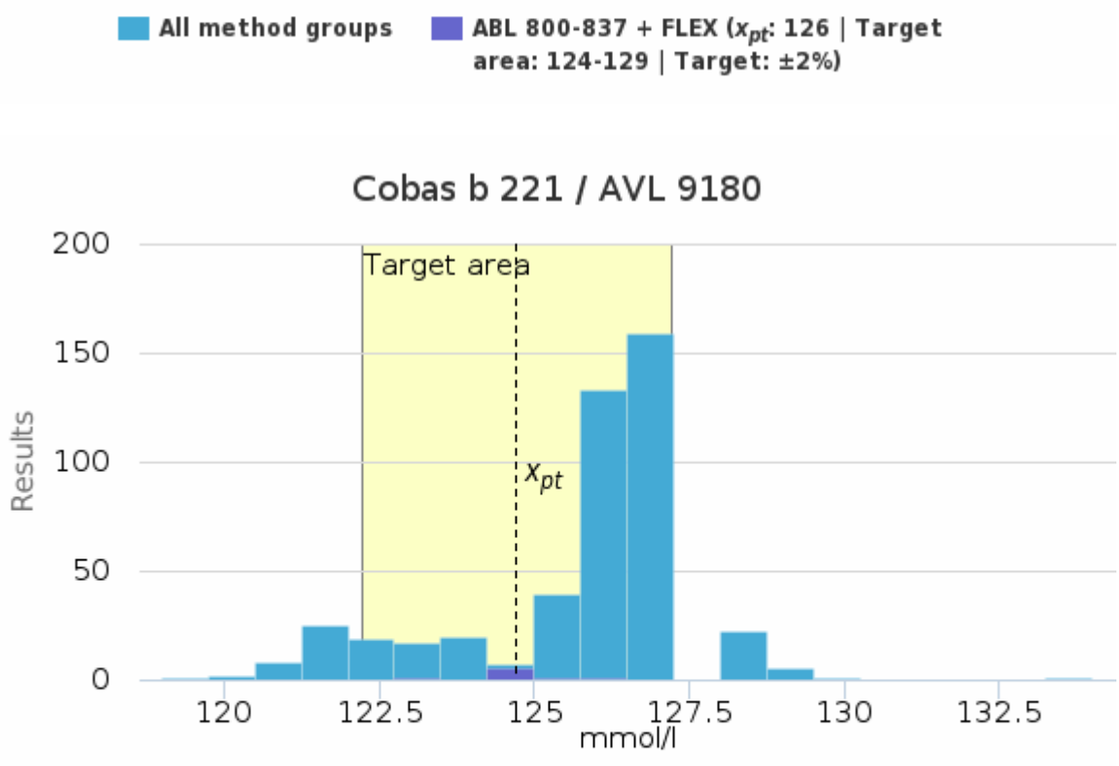
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	130	130	6	4.4	4	126	134	-	2
ABL 800-837 + FLEX	126	126	<1	0.8	<1	123	129	1	145
ABL 90 FLEX + FLEX PLUS	127	127	<1	0.4	<1	126	128	5	195
Cobas b 221 / AVL 9180	125	125	<1	0.7	<1	123	126	-	8
epoc Blood Analysis System	126	125	1	0.9	<1	125	128	-	9
Gem Premier 3000-3500	123	123	2	1.2	<1	119	124	-	11
Gem Premier 4000	124	124	1	1.0	<1	122	125	-	4
Gem Premier 5000	126	127	2	1.3	<1	123	128	-	9
Indiko Plus	-	-	-	-	-	124	124	-	1
i-STAT	124	124	<1	0.6	<1	123	125	-	11
i-STAT Alinity	124	124	<1	0.6	<1	123	125	-	7
RAPIDLab 1200 series (RL1240-RL1265)	123	123	2	1.7	1	121	124	-	2
RAPIDPoint 400/500 series	122	122	<1	0.6	<1	120	124	1	55
All	**126**	**126**	**2**	**1.5**	**<1**	**120**	**130**	**3**	**459**

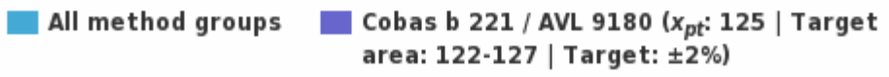
Sample S001 | Na, mmol/l| histogram summaries in LabScala



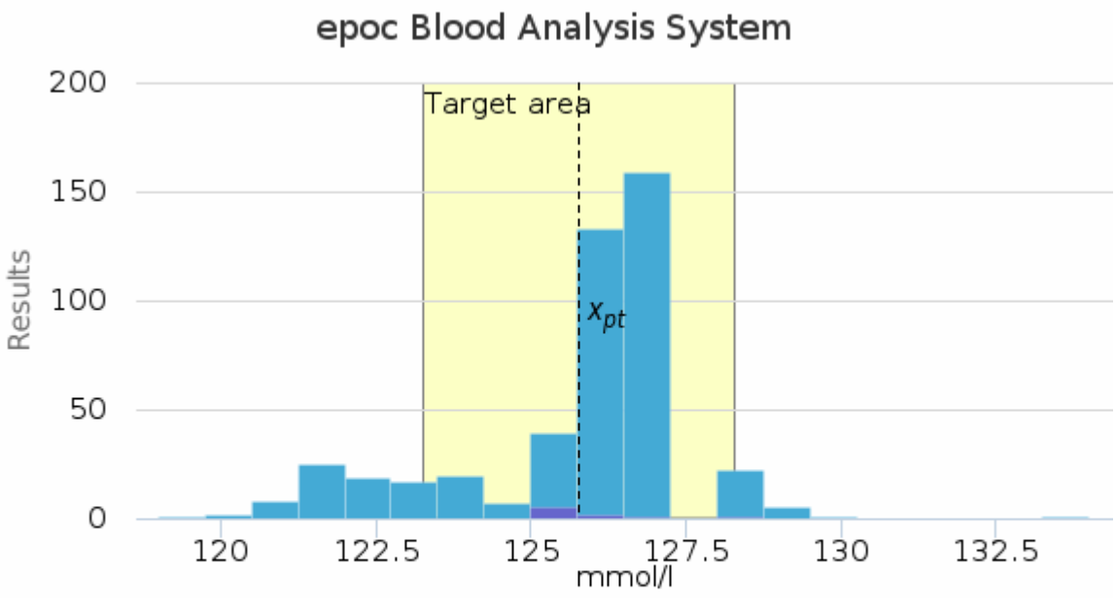


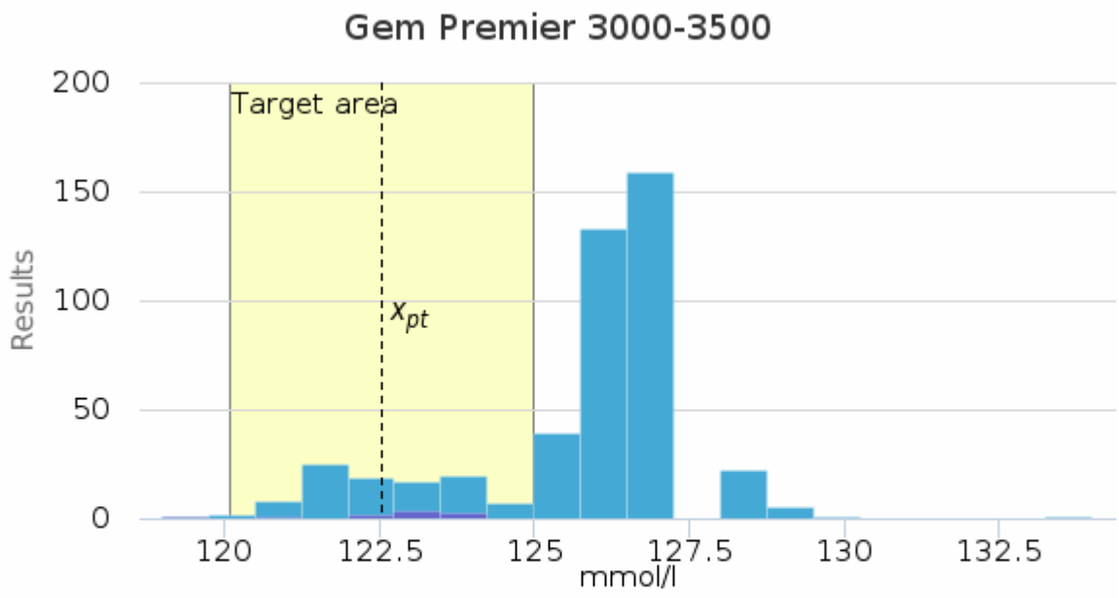


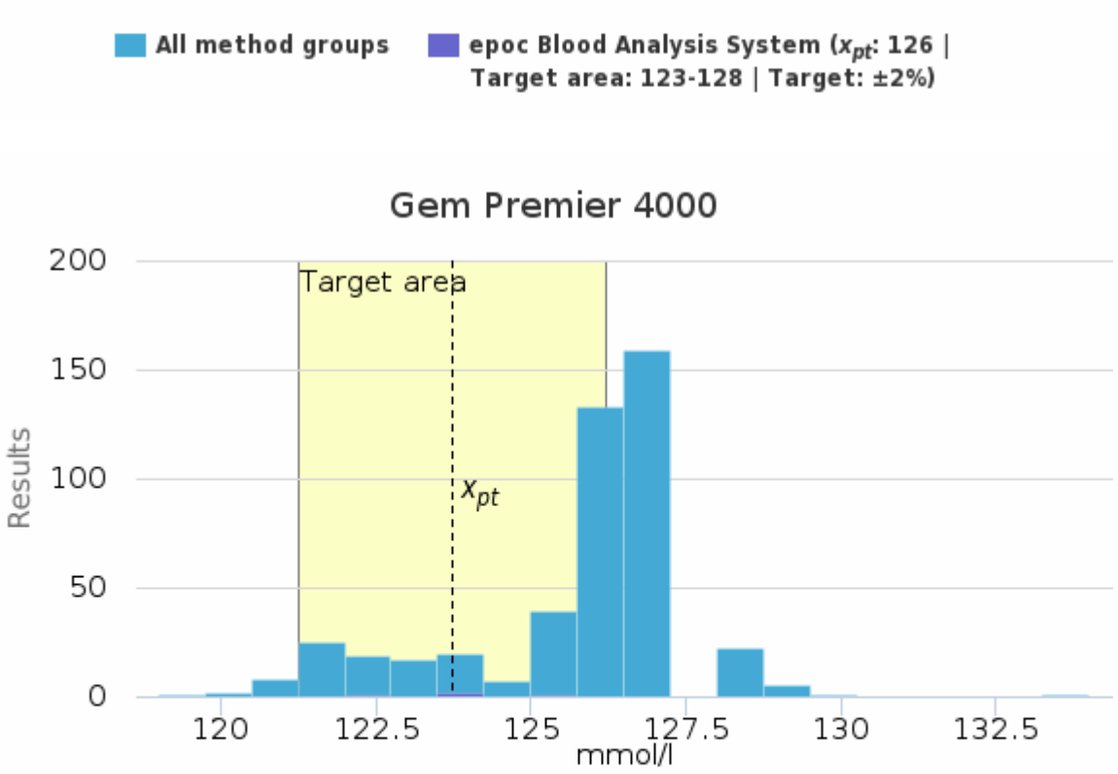


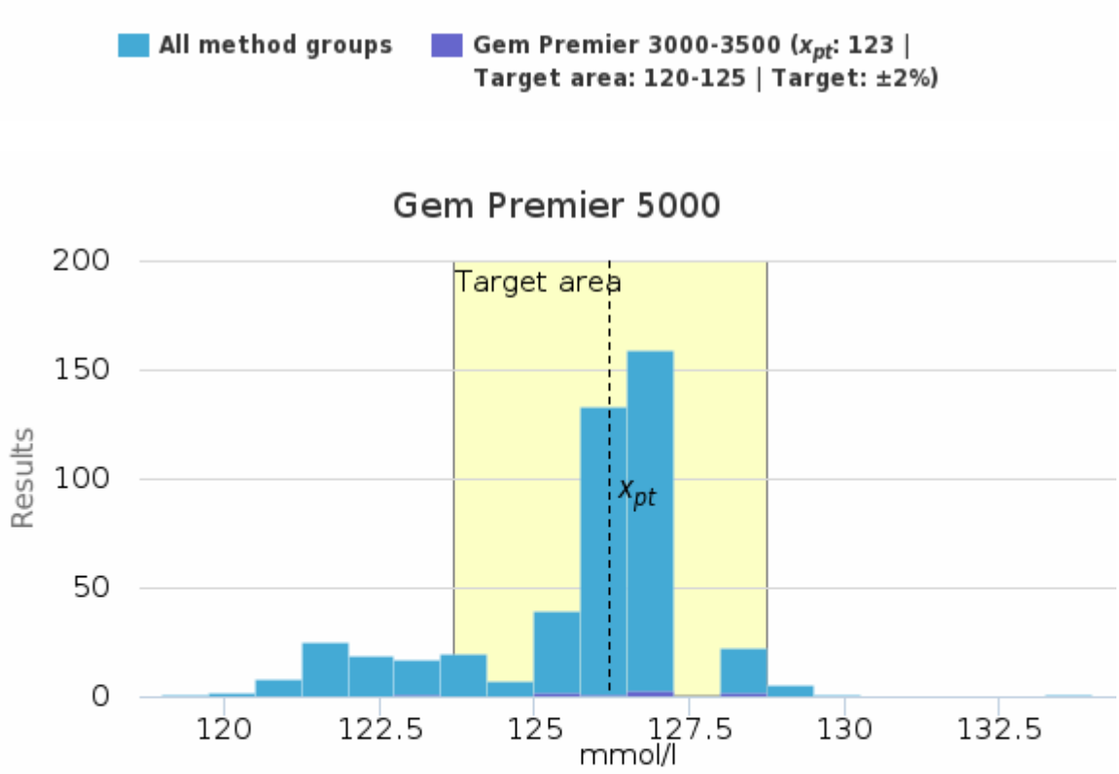


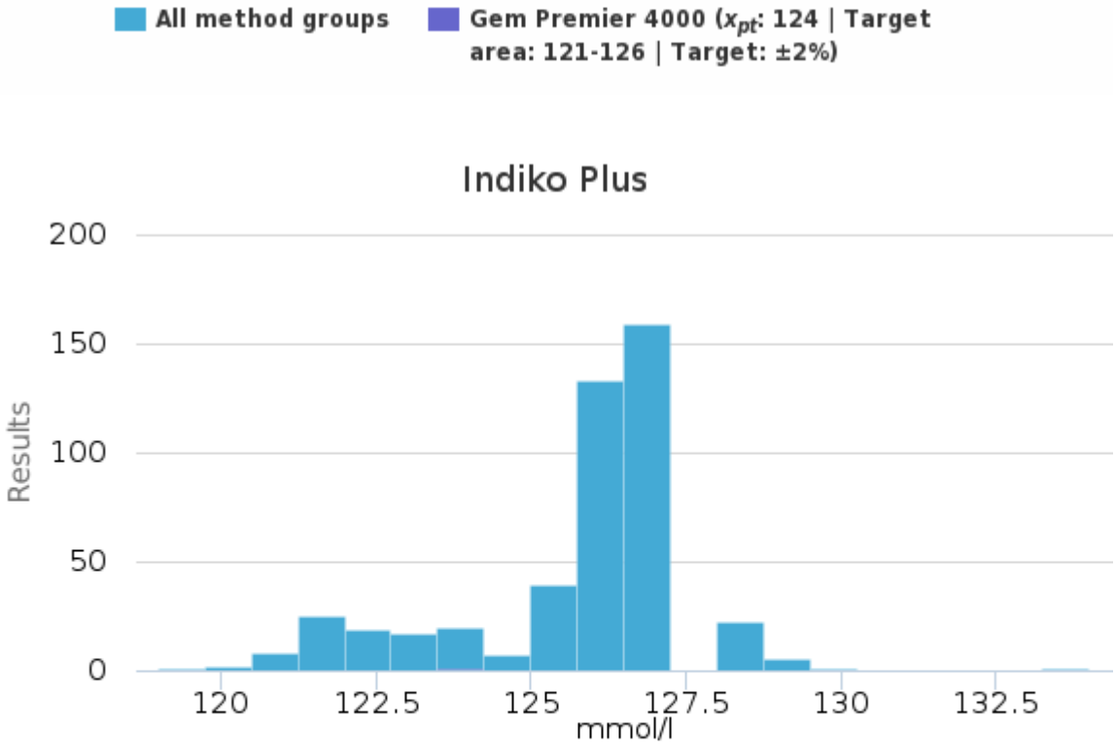
Acid-base status and electrolytes, February, 1-2023

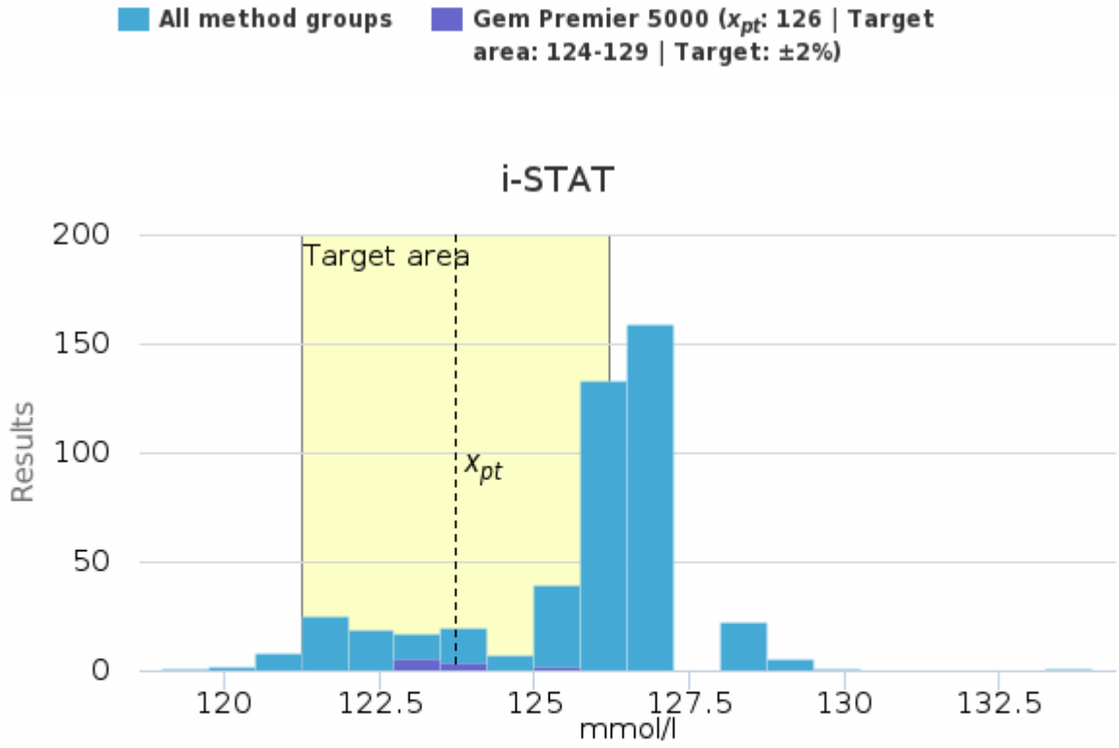


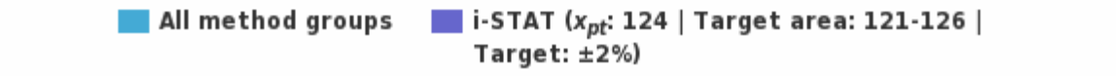




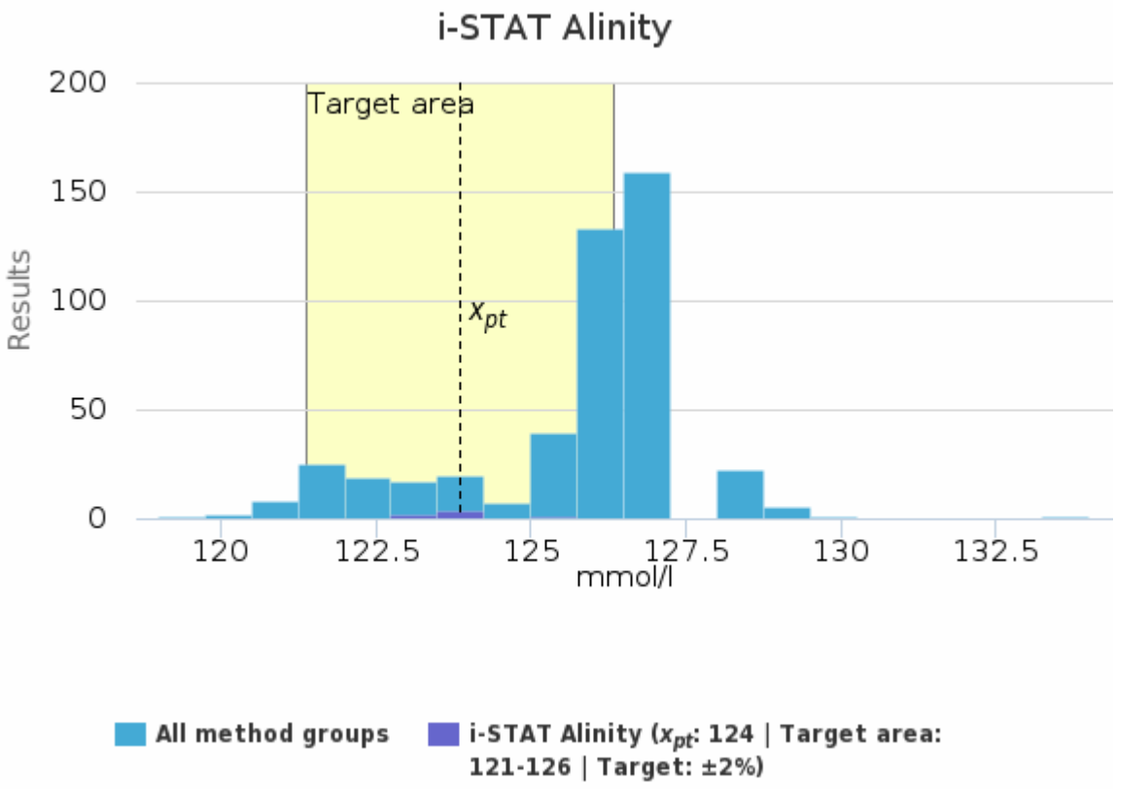


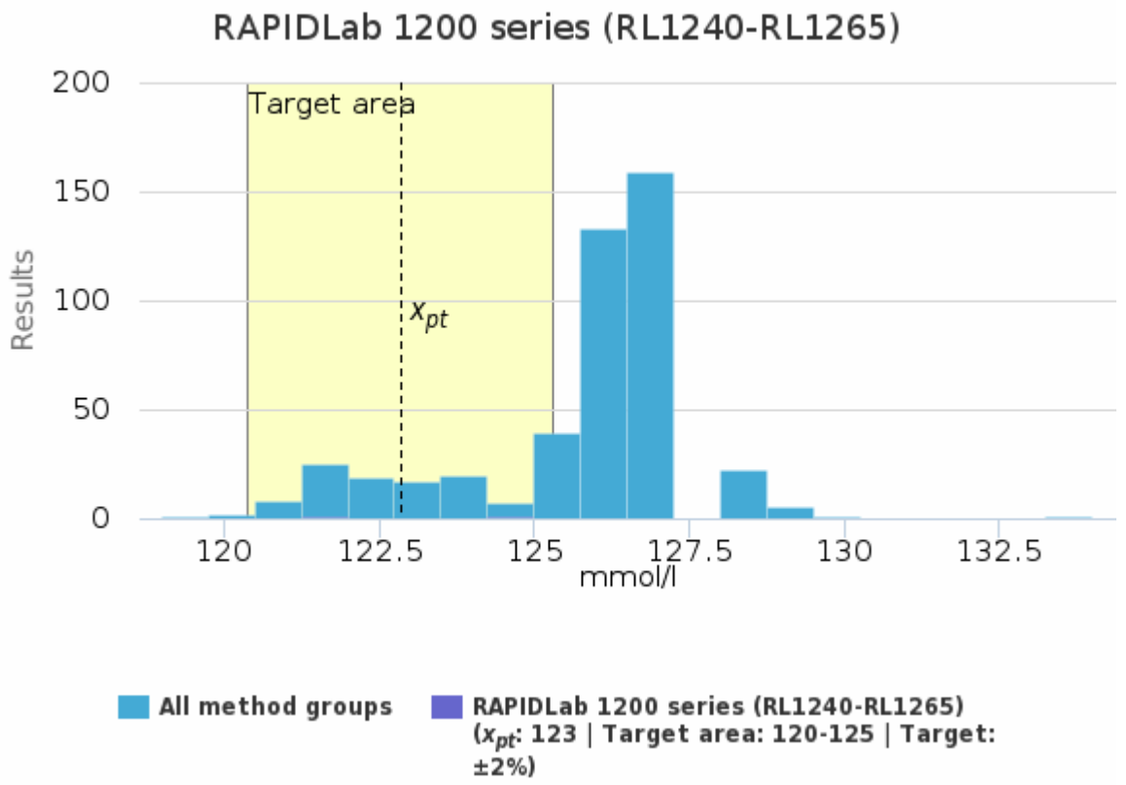


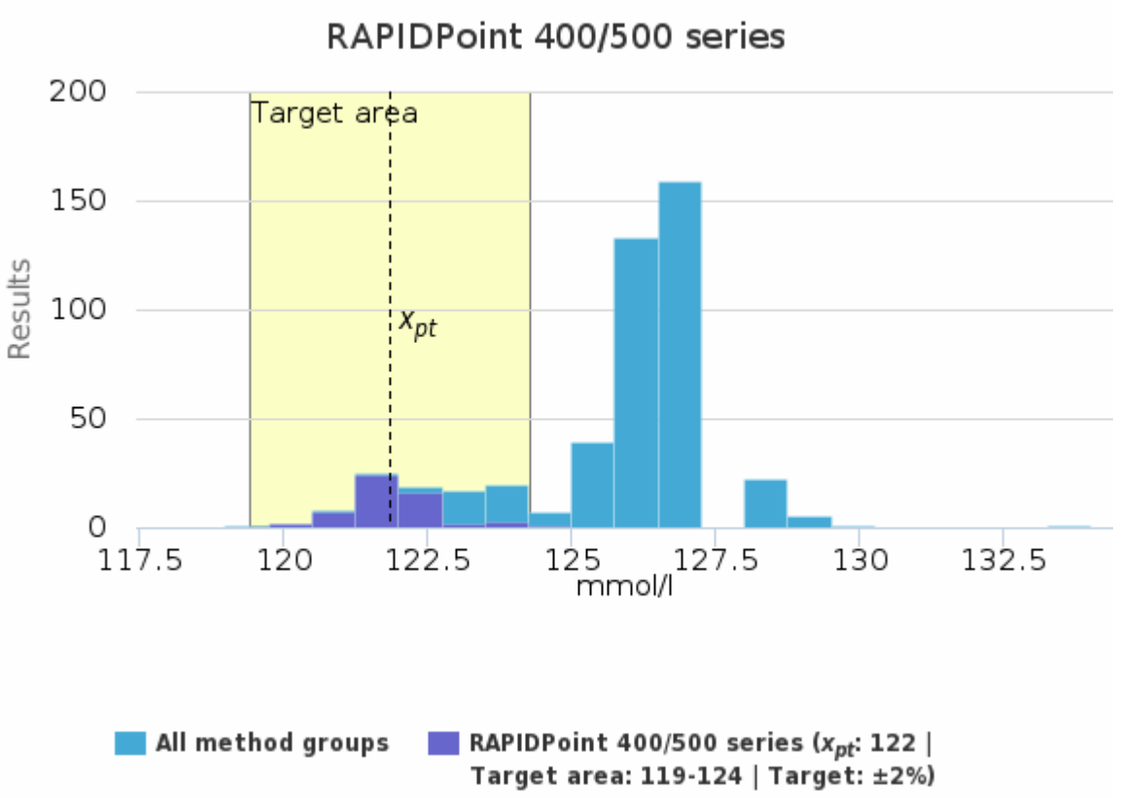




Acid-base status and electrolytes, February, 1-2023



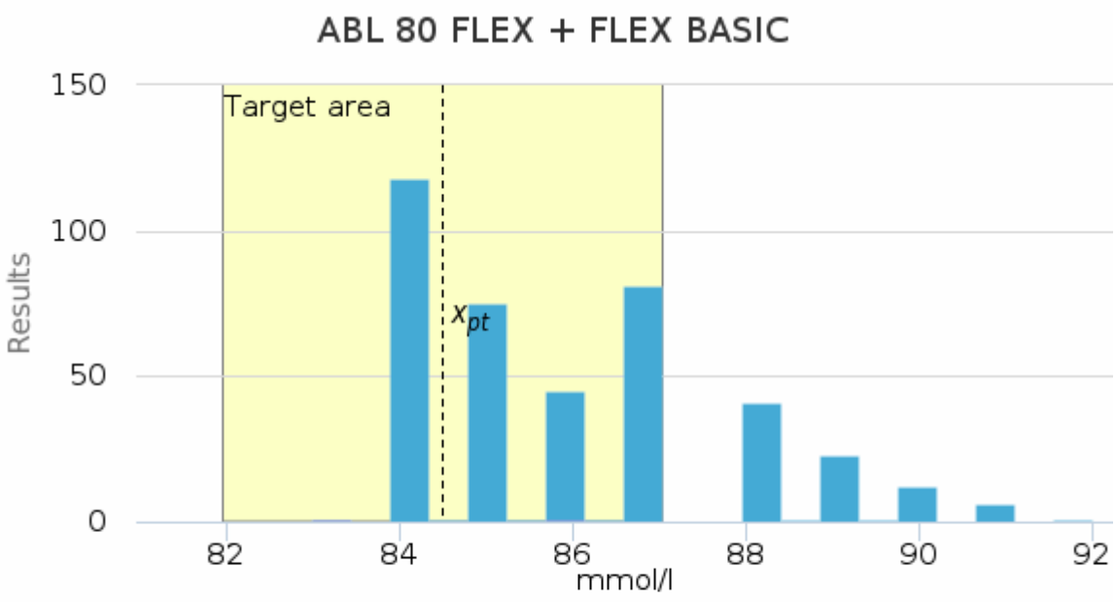


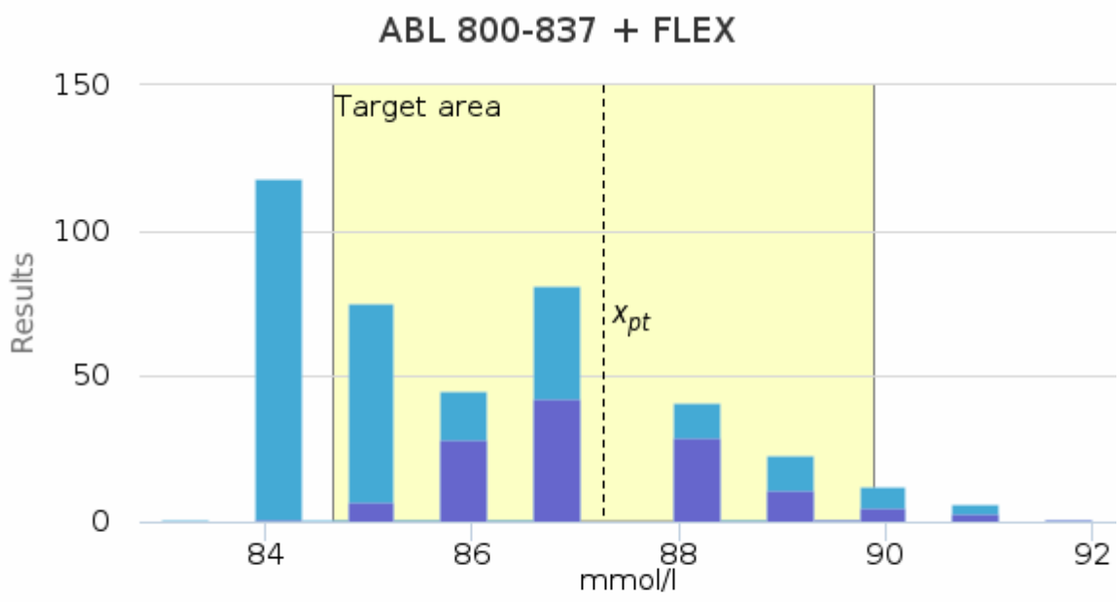


Sample S001 | Cl, mmol/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	85	85	2	2.5	2	83	86	-	2
ABL 800-837 + FLEX	87	87	1	1.5	<1	84	91	1	128
ABL 90 FLEX + FLEX PLUS	84	84	<1	0.6	<1	84	85	2	187
Cobas b 221 / AVL 9180	86	86	<1	0.7	<1	85	86	-	6
epoc Blood Analysis System	90	90	<1	0.8	<1	89	91	-	8
Gem Premier 4000	88	88	<1	0.6	<1	88	89	-	4
Gem Premier 5000	88	88	1	1.4	<1	87	91	-	9
Indiko Plus	-	-	-	-	-	89	89	-	1
i-STAT	89	89	<1	0.6	<1	88	90	-	7
i-STAT Alinity	-	-	-	-	-	90	90	-	1
RAPIDLab 1200 series (RL1240-RL1265)	89	89	2	2.4	2	87	90	-	2
RAPIDPoint 400/500 series	87	87	<1	0.6	<1	86	88	1	53
All	**86**	**86**	**2**	**2.1**	**<1**	**83**	**91**	**1**	**408**

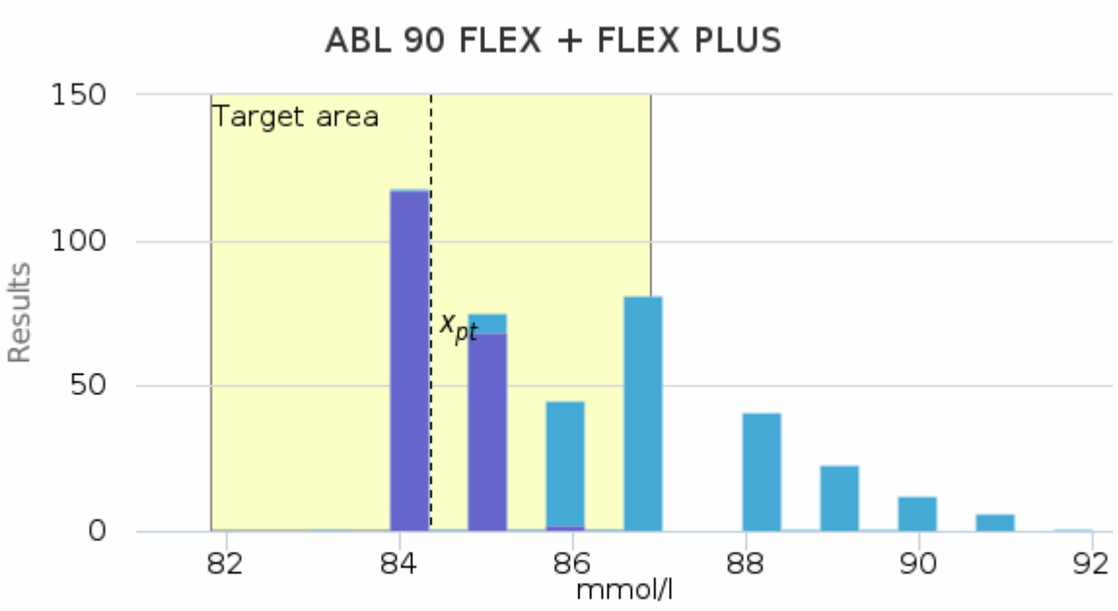
Sample S001 | Cl, mmol/l| histogram summaries in LabScala

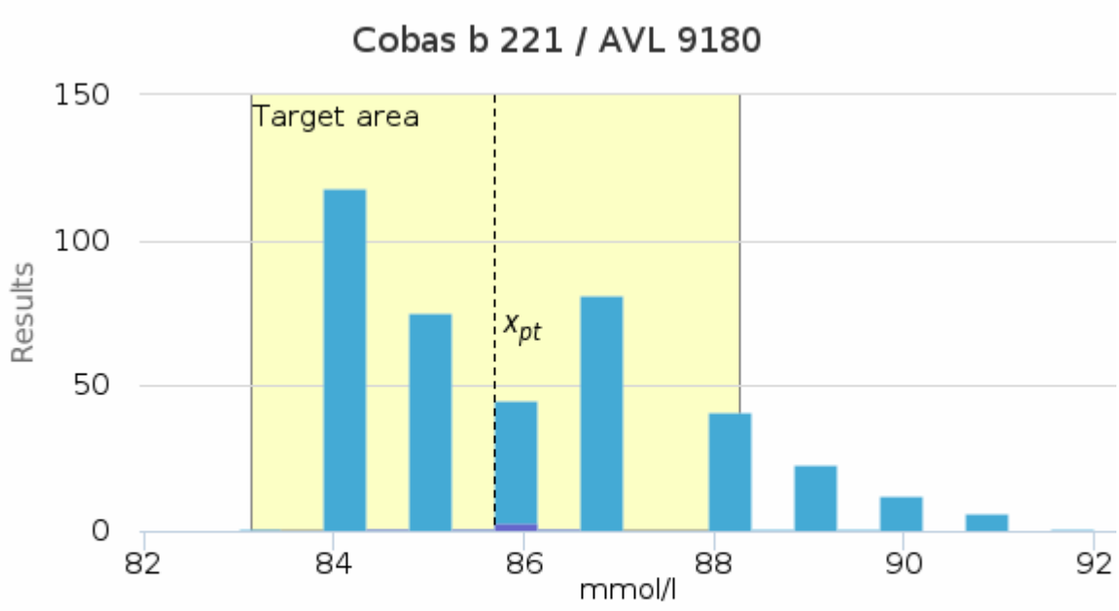




All method groups
ABL 80 FLEX + FLEX BASIC (x_{pt}: 85 | Target area: 82-87 | Target: ±3%)

All method groups
ABL 800-837 + FLEX (x_{pt}: 87 | Target area: 85-90 | Target: ±3%)

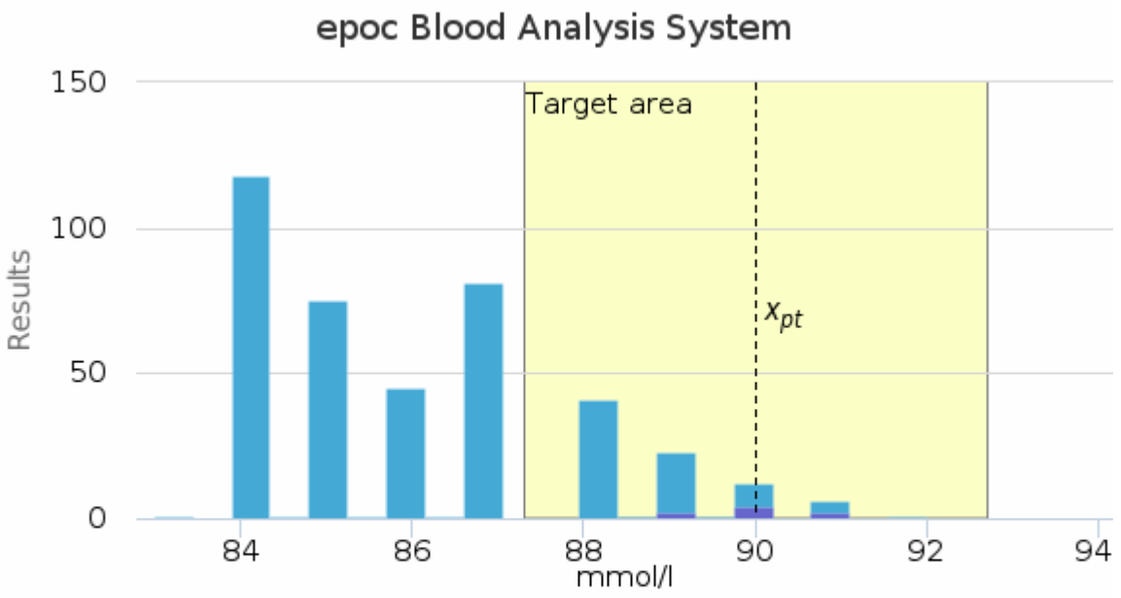


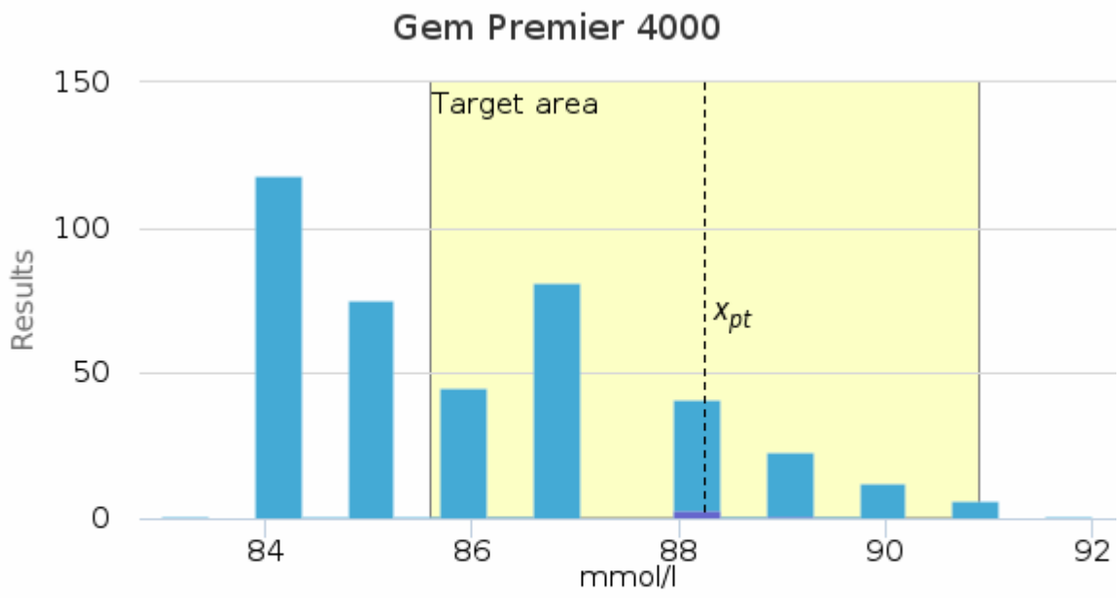


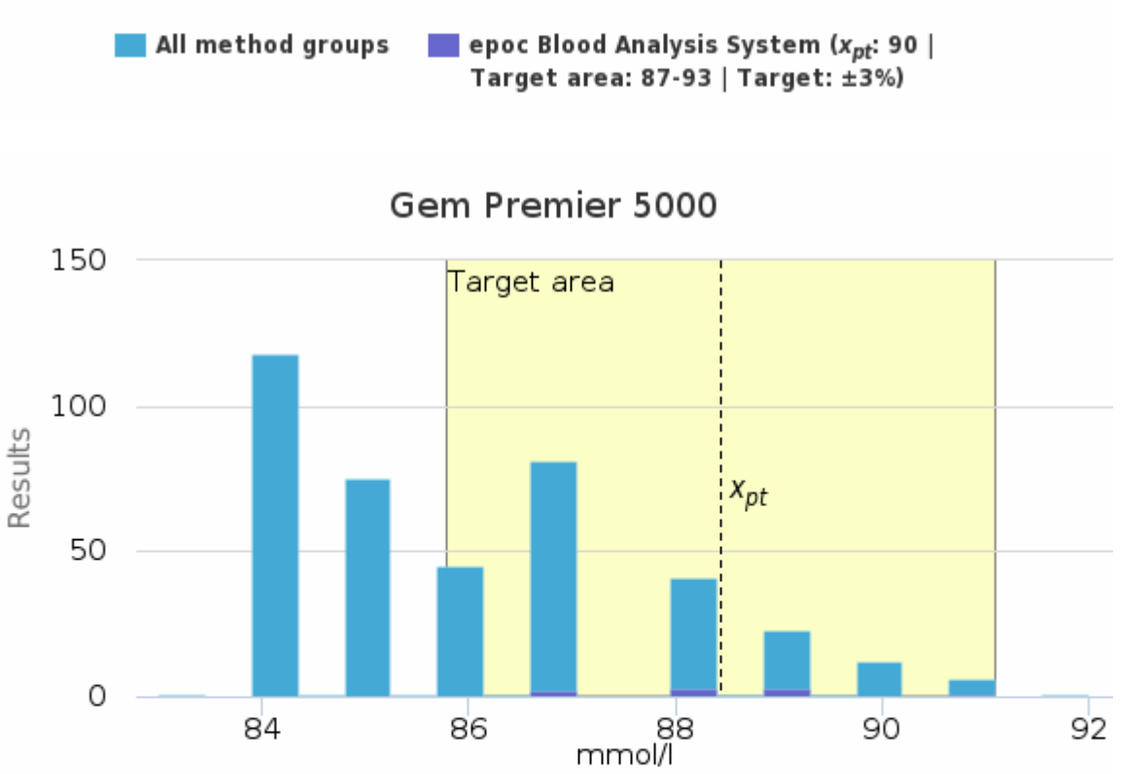
All method groups
ABL 90 FLEX + FLEX PLUS (x_{pt}: 84 | Target area: 82-87 | Target: ±3%)

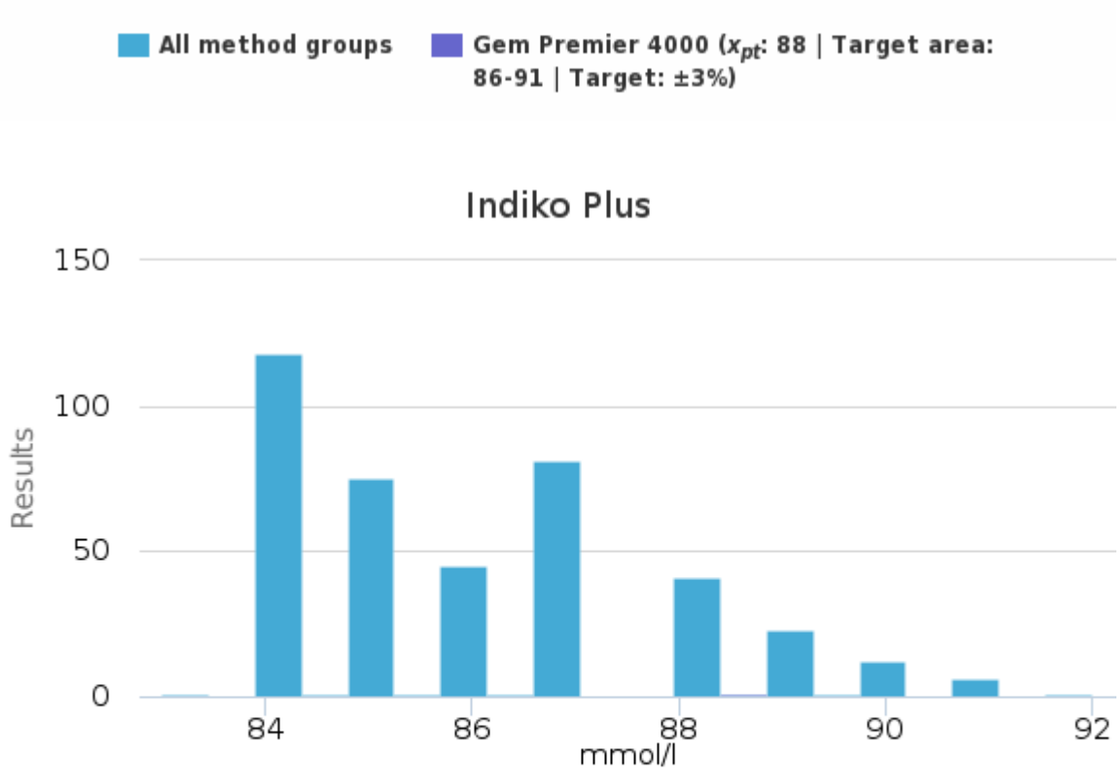
All method groups
Cobas b 221 / AVL 9180 (x_{pt}: 86 | Target area: 83-88 | Target: ±3%)

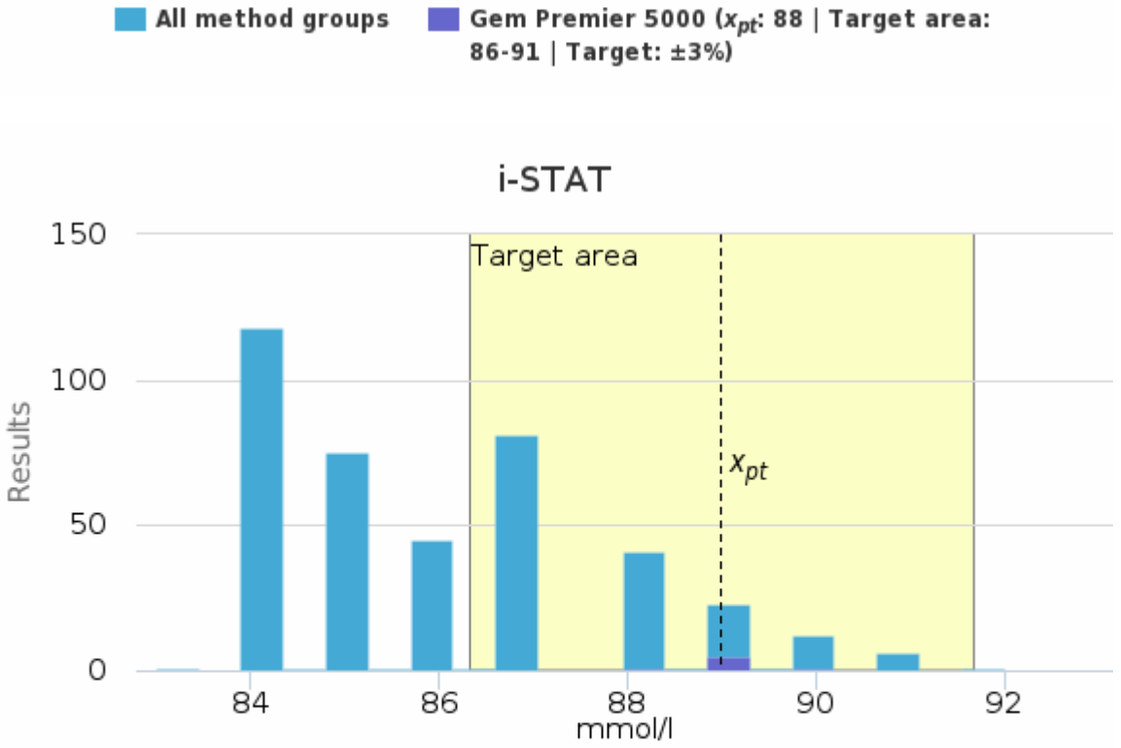
Acid-base status and electrolytes, February, 1-2023

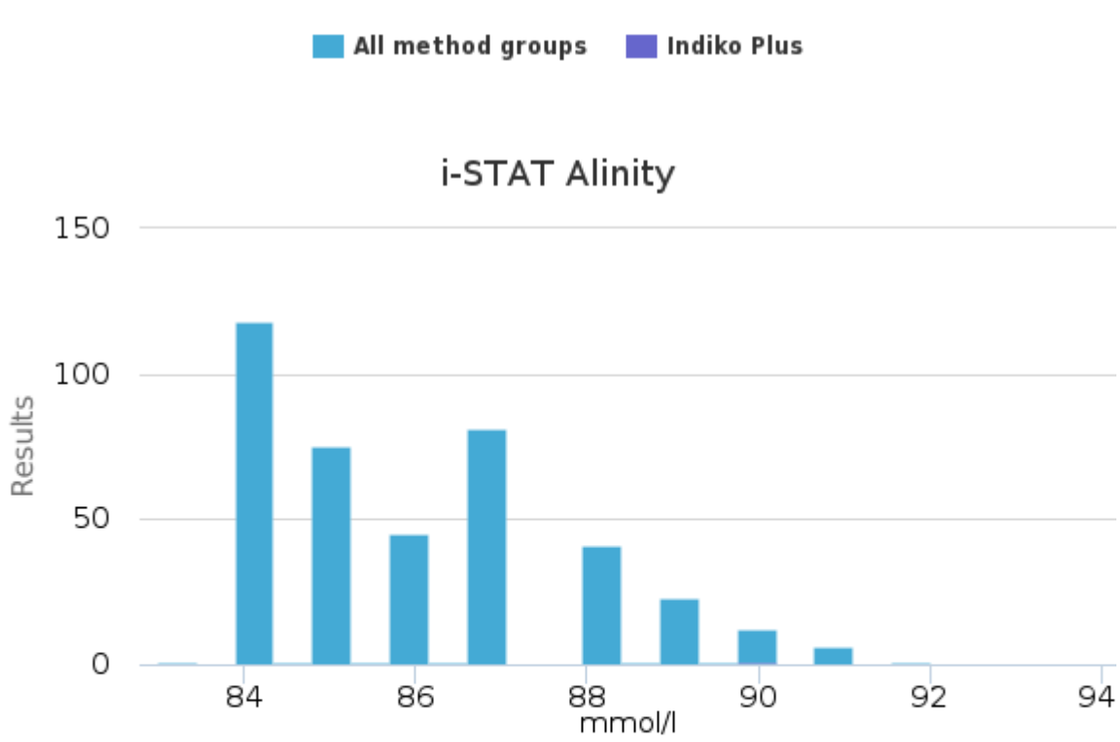




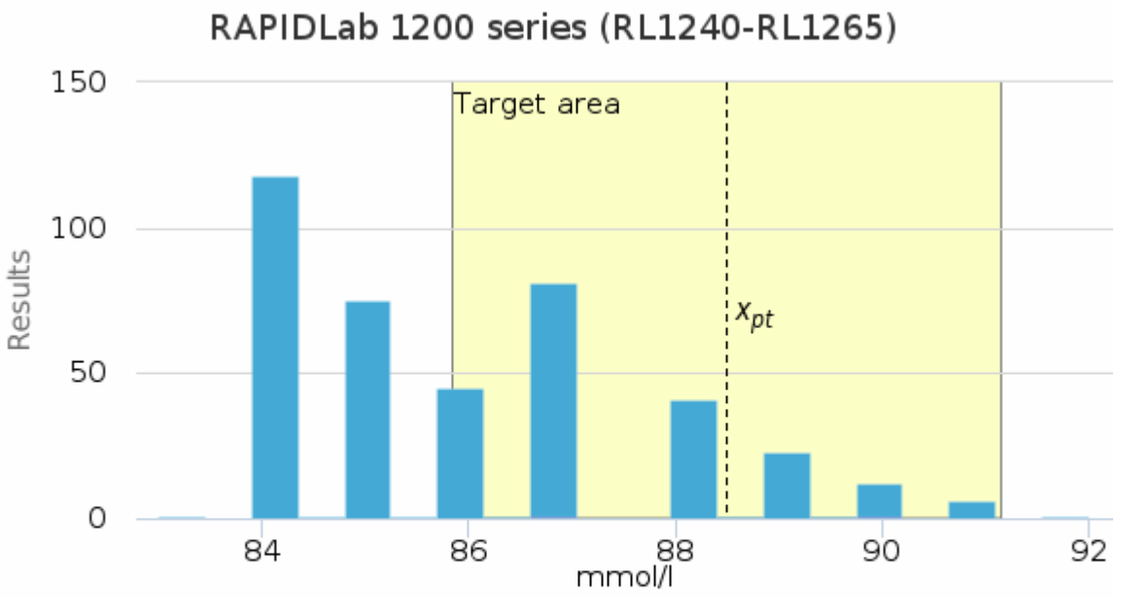


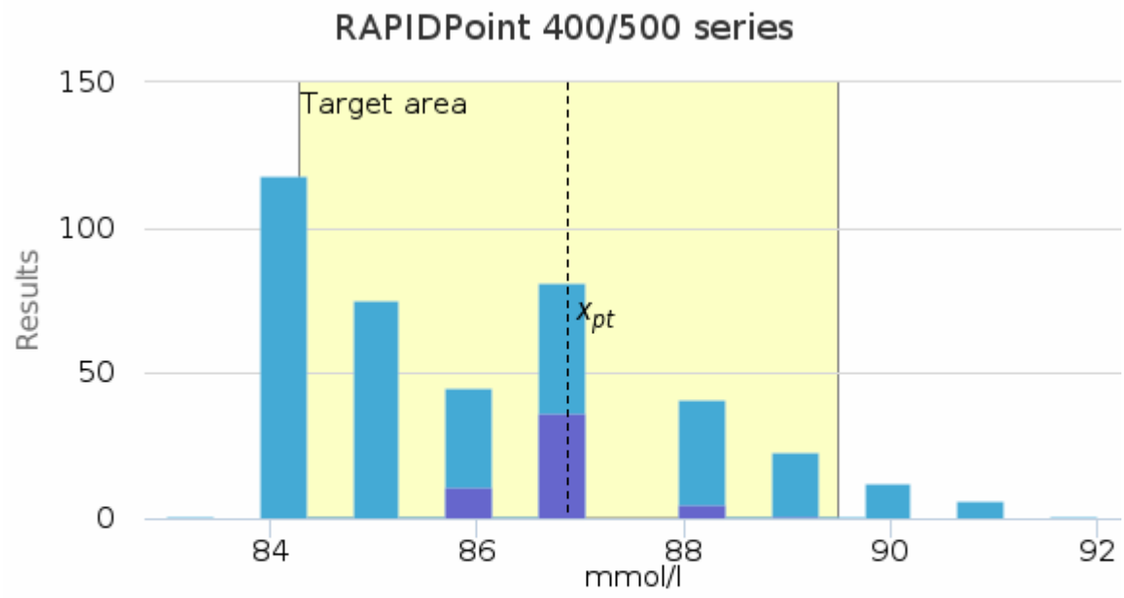






Acid-base status and electrolytes, February, 1-2023

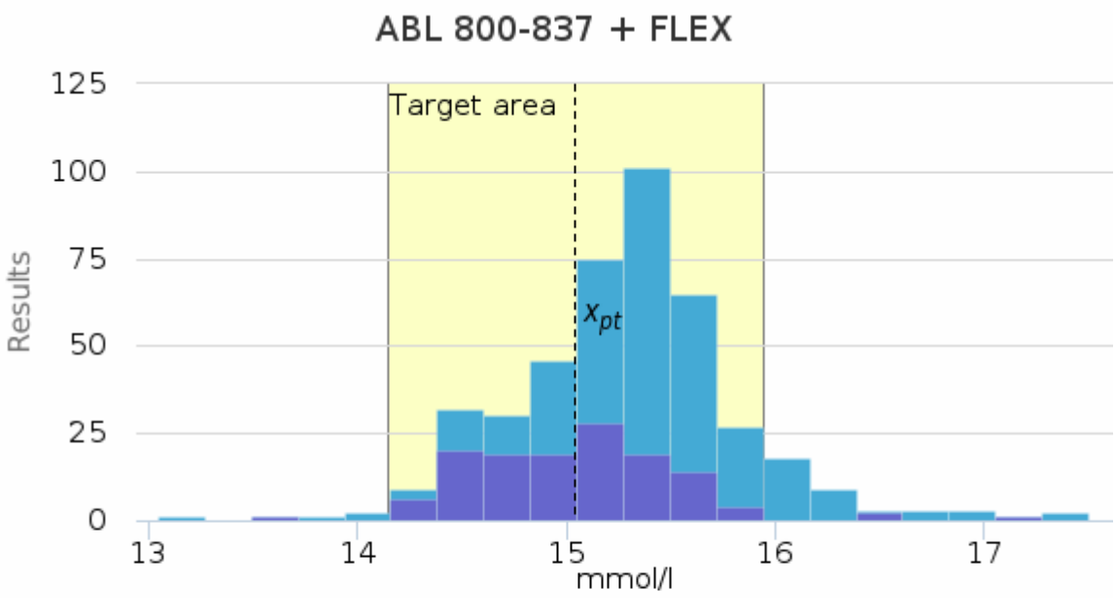


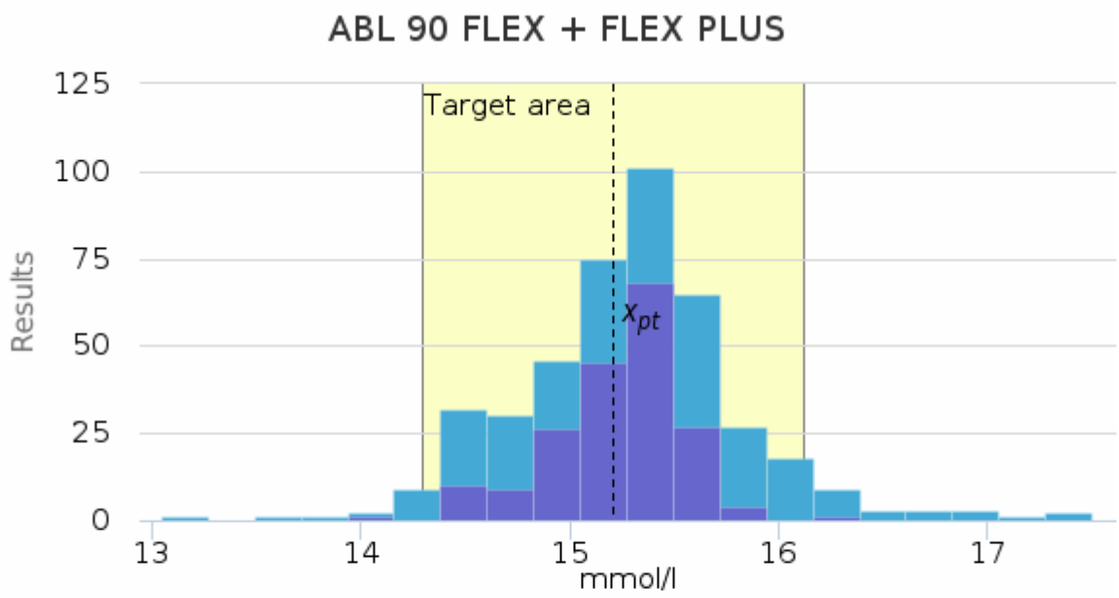


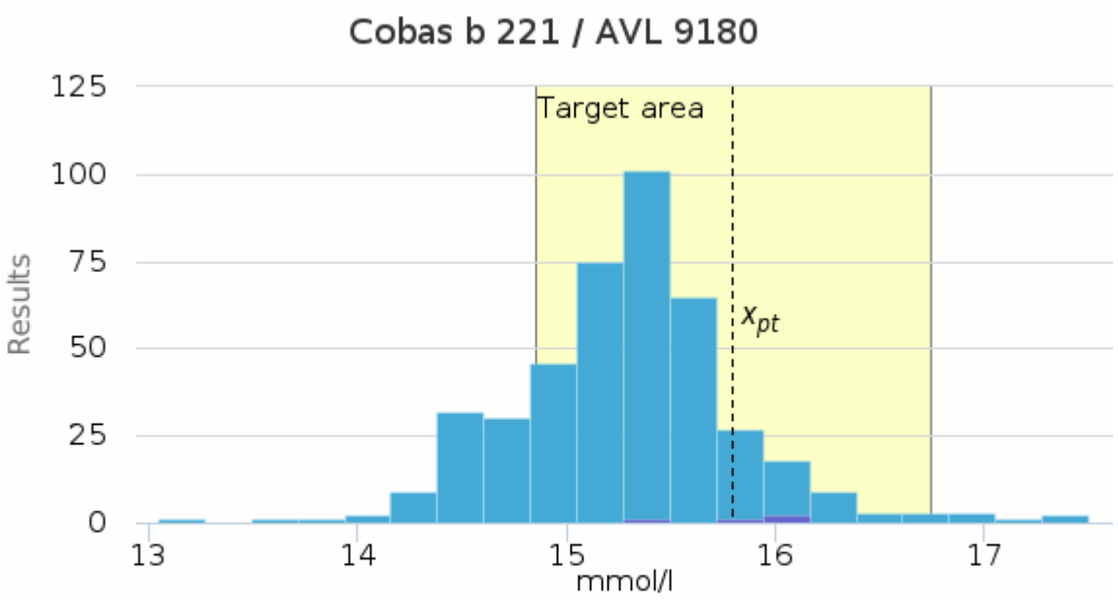
Sample S001 | Glucose, mmol/l

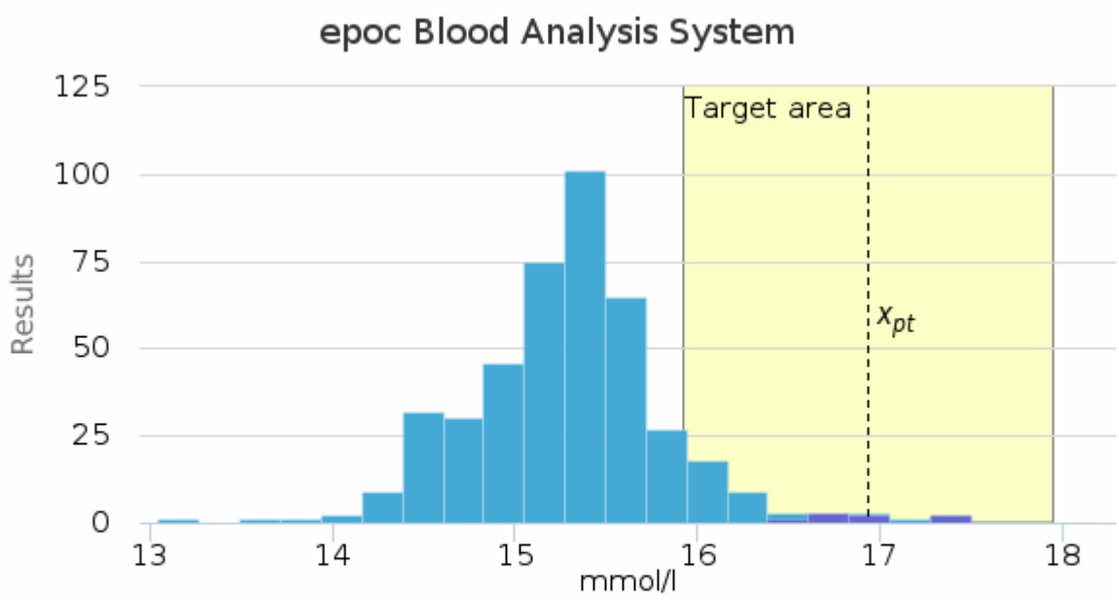
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	15.0	15.1	0.4	2.9	<0.1	14.2	16.4	2	133
ABL 90 FLEX + FLEX PLUS	15.2	15.3	0.3	1.8	<0.1	14.4	15.9	2	191
Cobas b 221 / AVL 9180	15.8	15.9	0.4	2.2	0.2	15.3	16.1	-	4
epoc Blood Analysis System	16.9	16.9	0.3	1.9	0.1	16.6	17.5	-	8
Gem Premier 3000-3500	14.3	14.4	0.6	4.3	0.2	13.0	15.4	-	10
Gem Premier 4000	16.2	16.2	0.5	3.3	0.3	15.6	16.9	-	4
Gem Premier 5000	15.3	15.3	0.5	3.3	0.2	14.3	16.2	-	9
i-STAT	15.6	15.6	0.3	1.7	<0.1	15.3	16.2	-	11
i-STAT Alinity	15.8	15.7	0.2	1.3	<0.1	15.6	16.1	-	5
RAPIDPoint 400/500 series	15.8	15.8	0.3	1.8	<0.1	15.2	16.3	-	54
All	**15.3**	**15.3**	**0.5**	**3.1**	**<0.1**	**13.8**	**16.9**	**7**	**429**

Sample S001 | Glucose, mmol/l| histogram summaries in LabScala

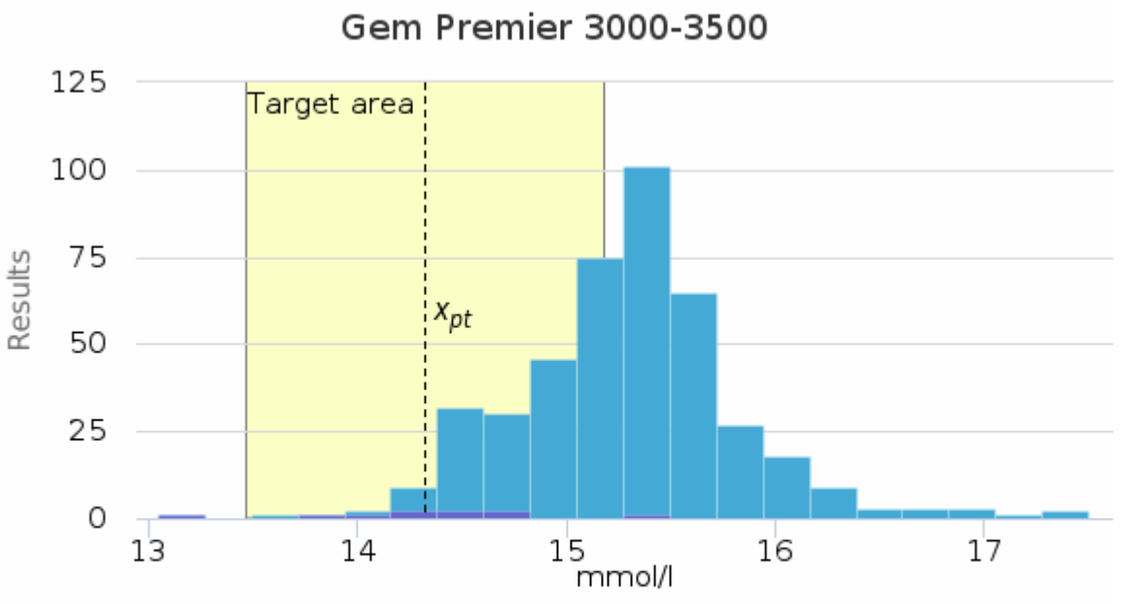


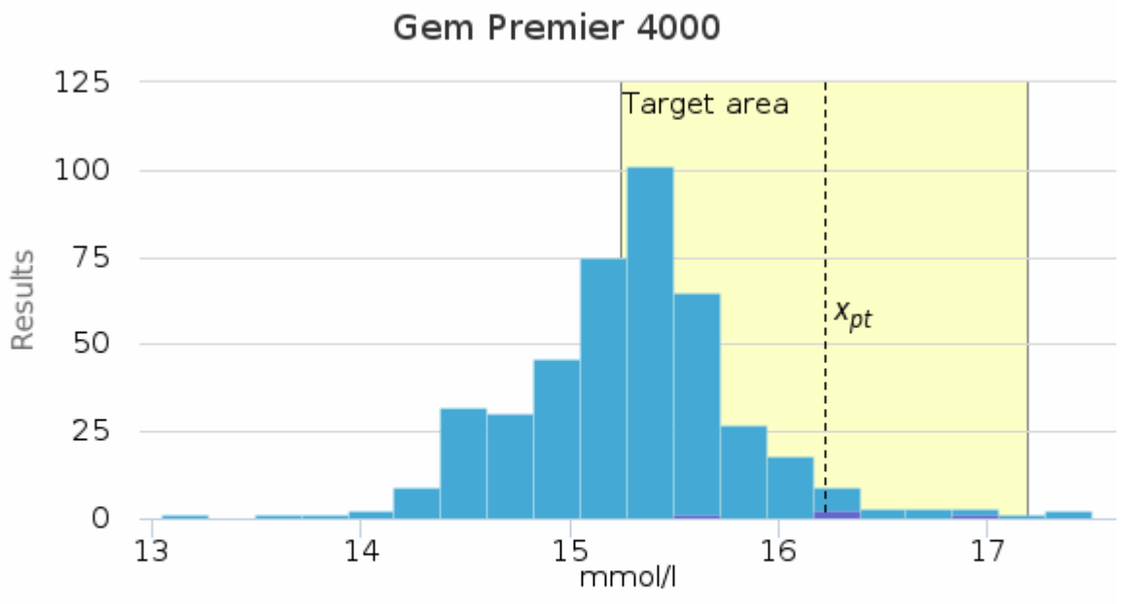


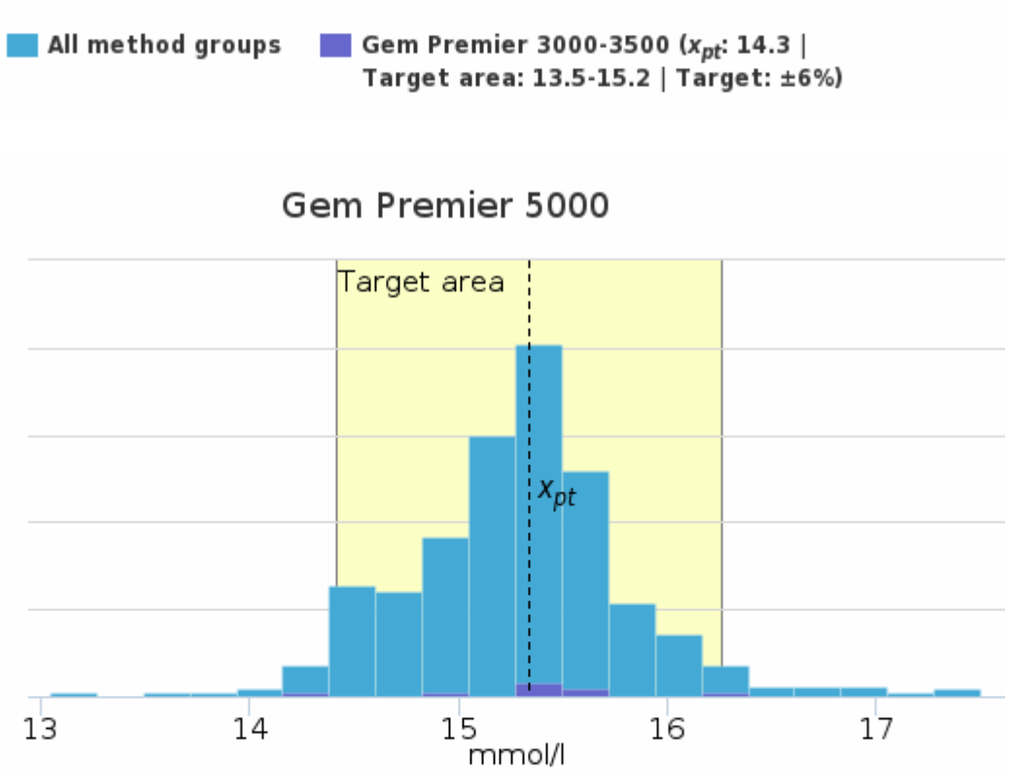


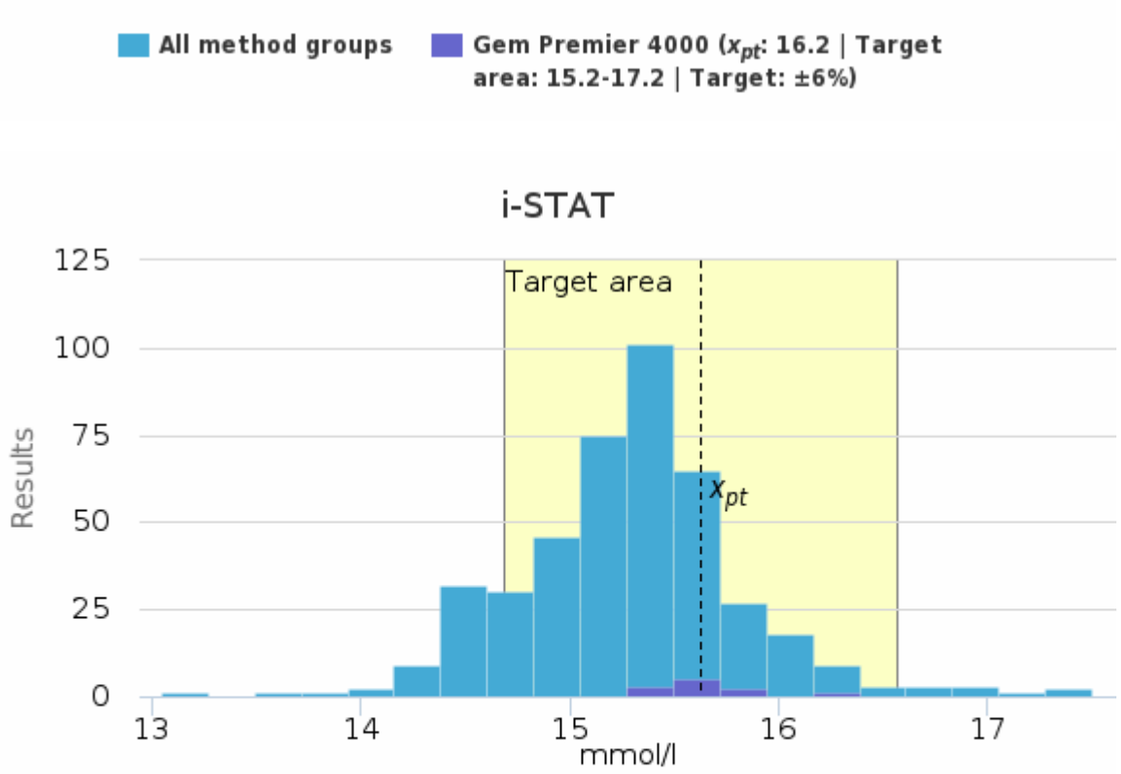


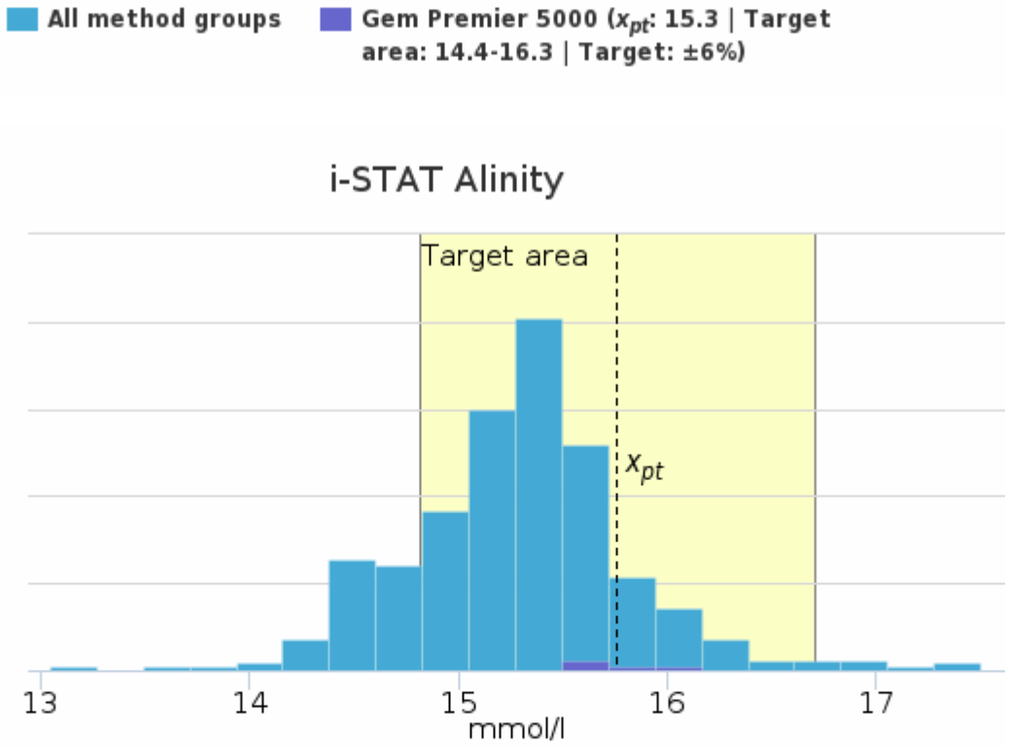
Acid-base status and electrolytes, February, 1-2023

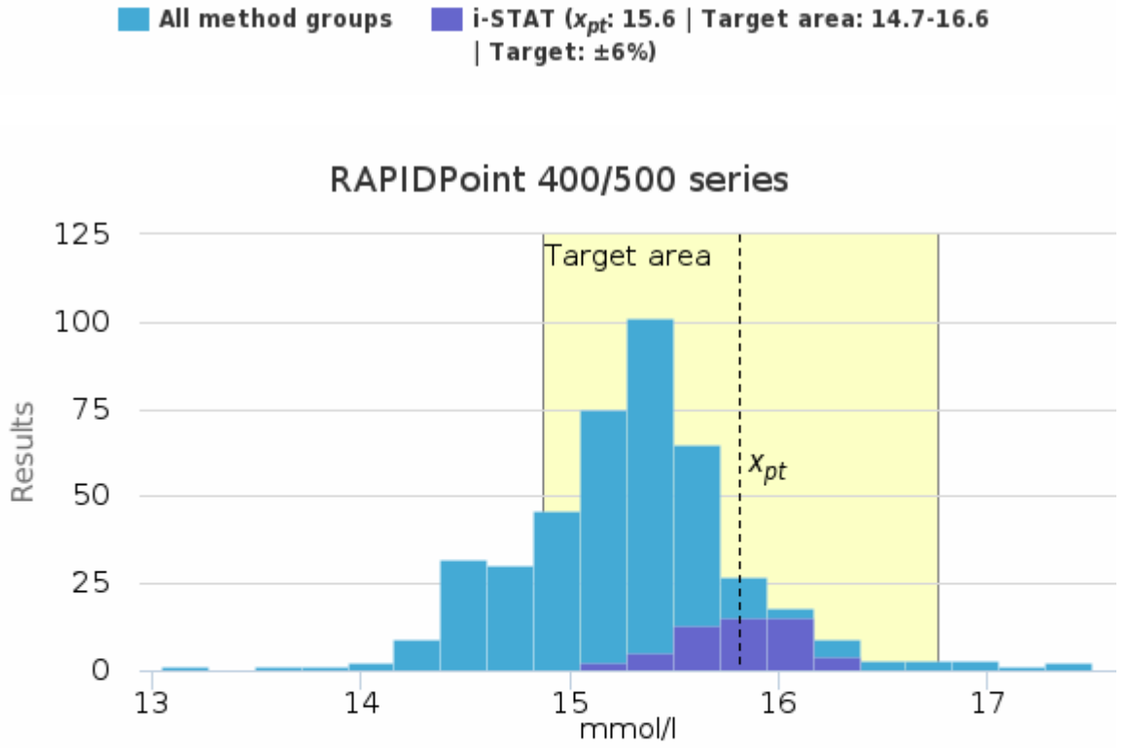


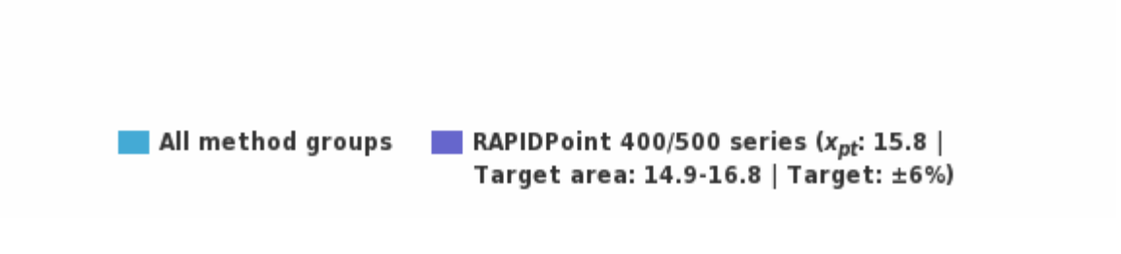








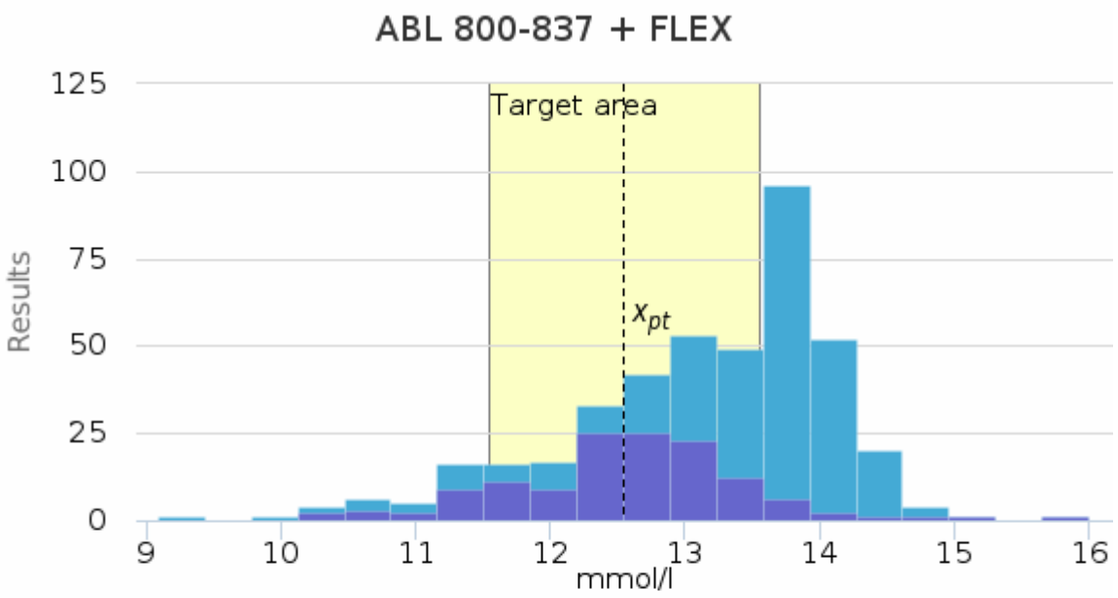


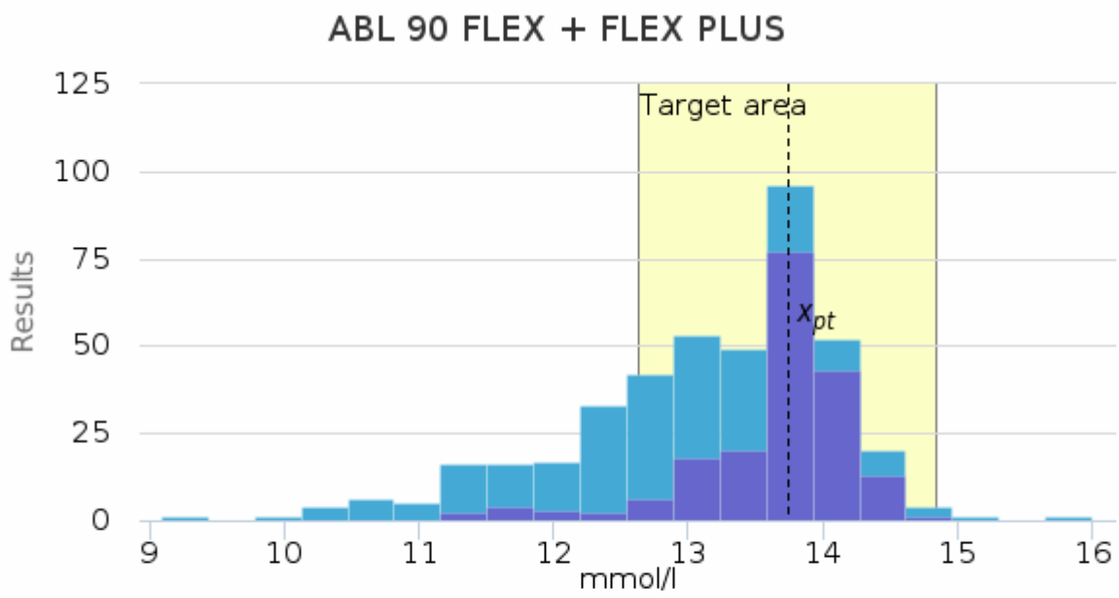


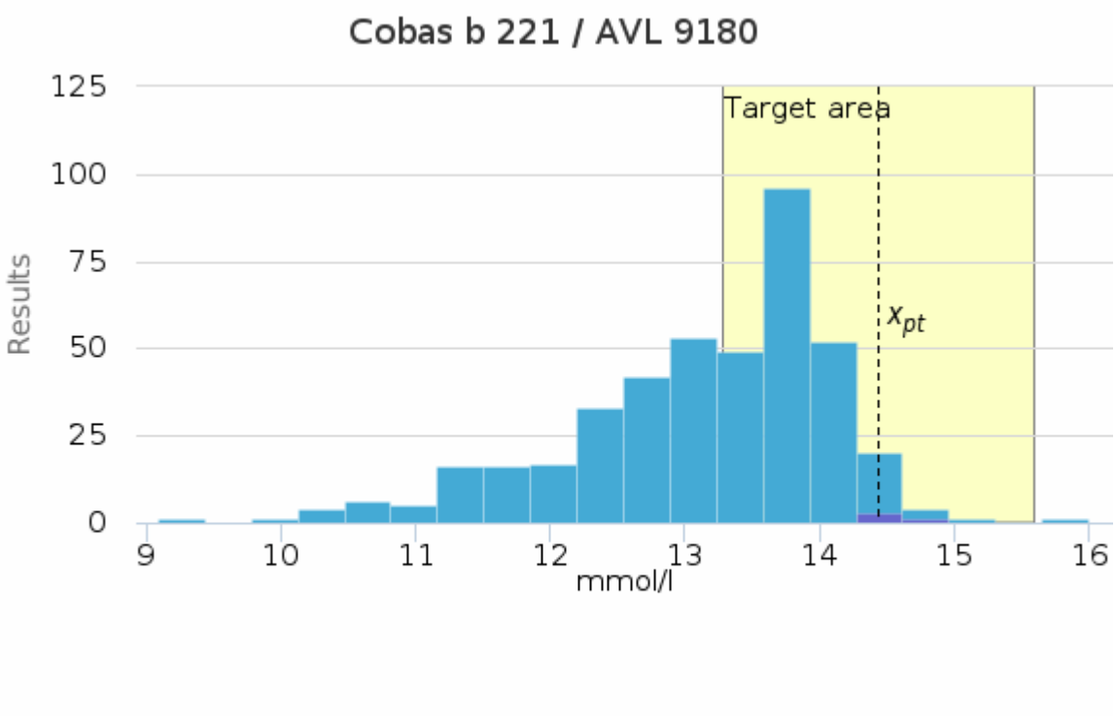
Sample S001 | Lactate, mmol/l

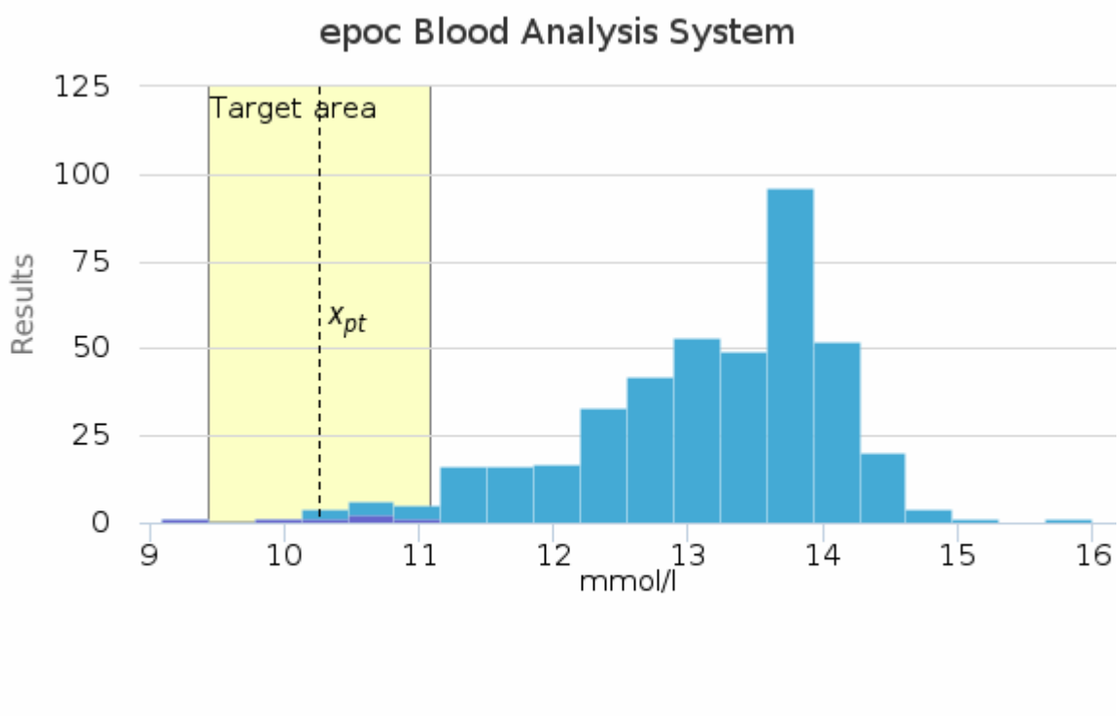
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	12.5	12.6	0.8	6.7	<0.1	10.2	15.0	1	133
ABL 90 FLEX + FLEX PLUS	13.7	13.8	0.4	3.3	<0.1	12.1	14.7	8	189
Cobas b 221 / AVL 9180	14.4	14.4	0.2	1.1	<0.1	14.3	14.7	-	4
epoc Blood Analysis System	10.3	10.4	0.7	6.5	0.3	9.1	11.0	-	6
Gem Premier 3000-3500	11.9	11.5	1.1	9.6	0.4	10.4	13.8	-	10
Gem Premier 4000	13.5	13.5	0.4	2.7	0.2	13.1	14.0	-	4
Gem Premier 5000	13.2	13.3	0.4	2.7	0.1	12.7	13.7	-	9
i-STAT	13.9	13.9	0.3	1.8	<0.1	13.5	14.3	-	8
i-STAT Alinity	-	-	-	-	-	14.0	14.0	-	1
RAPIDPoint 400/500 series	13.0	13.1	0.8	6.3	0.1	11.0	14.8	-	53
All	**13.2**	**13.4**	**0.9**	**6.9**	**<0.1**	**10.4**	**16.0**	**5**	**417**

Sample S001 | Lactate, mmol/l| histogram summaries in LabScala

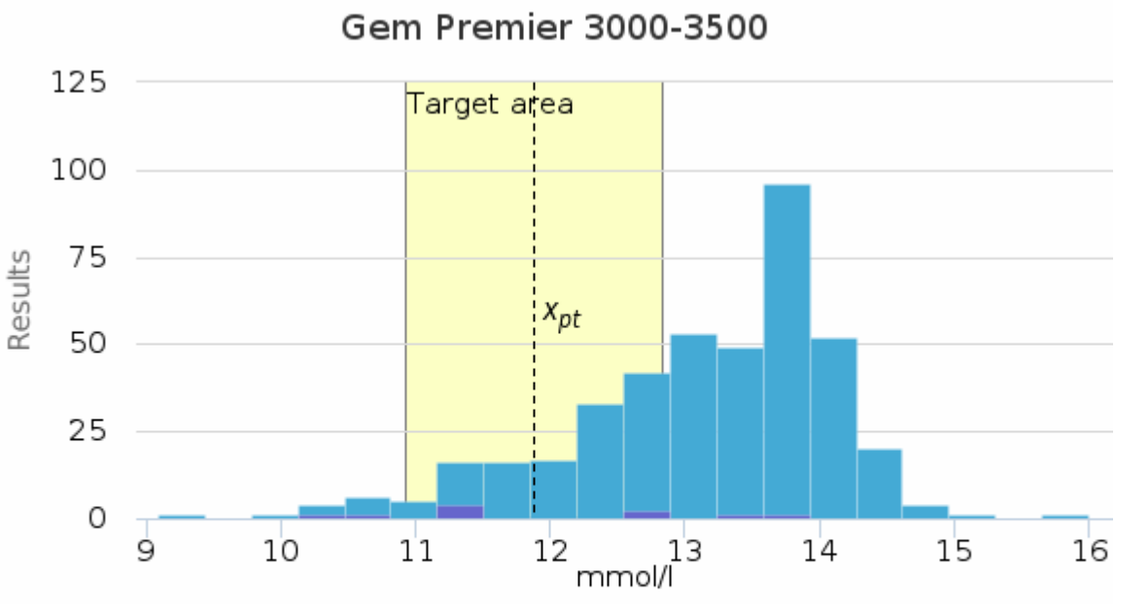


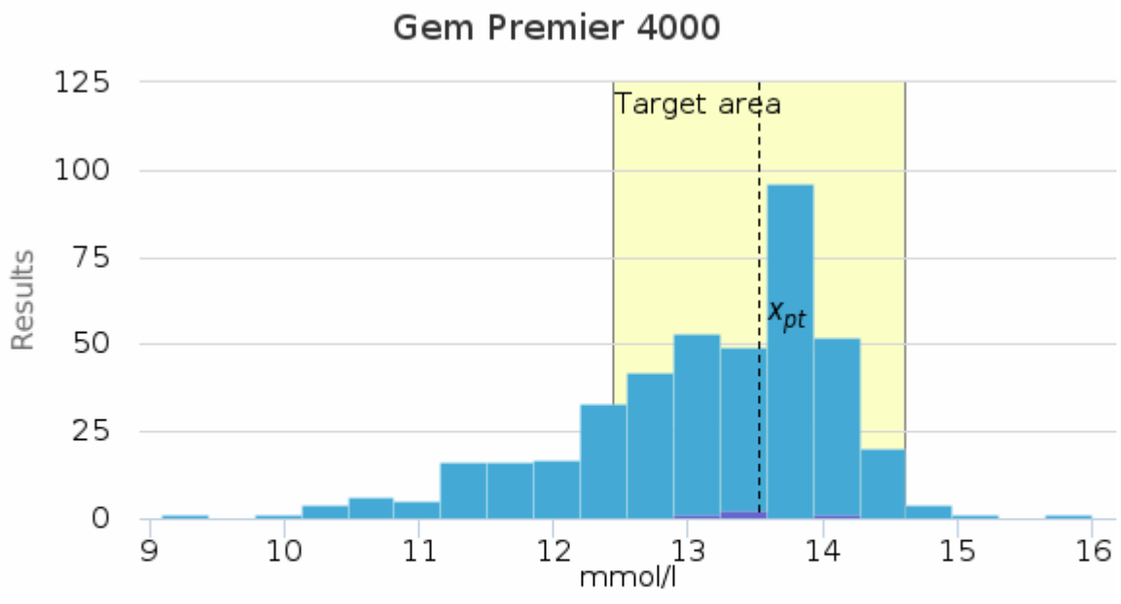


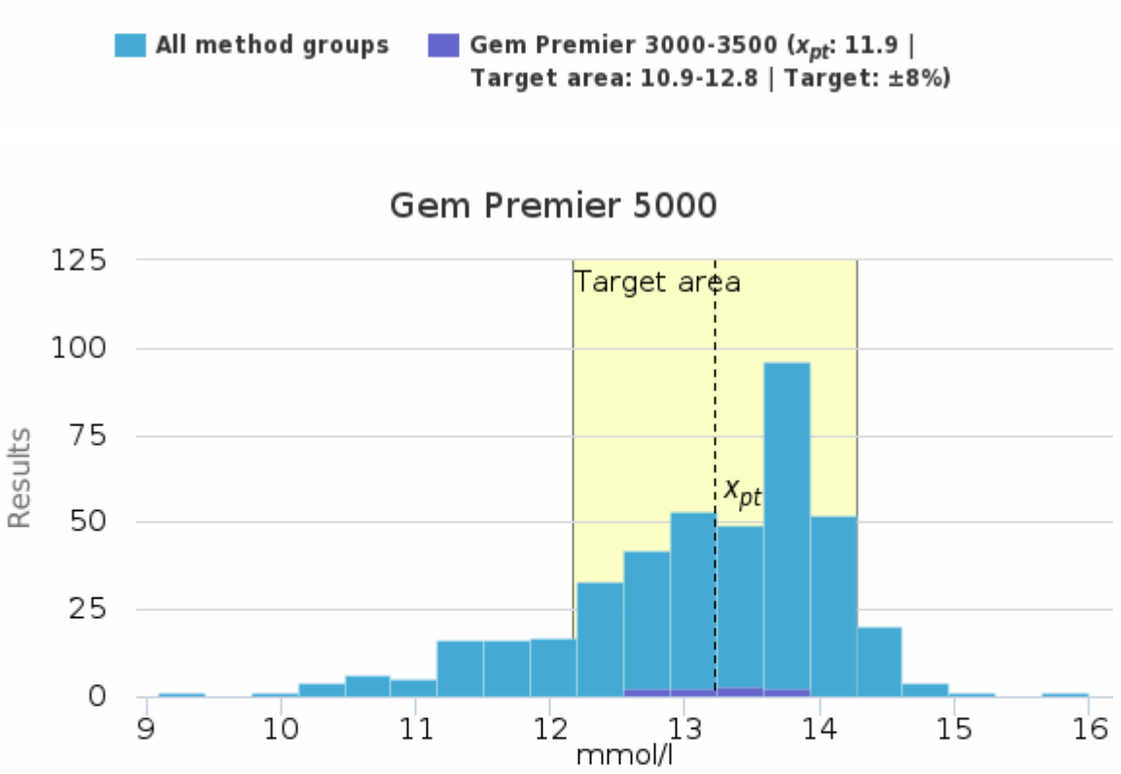


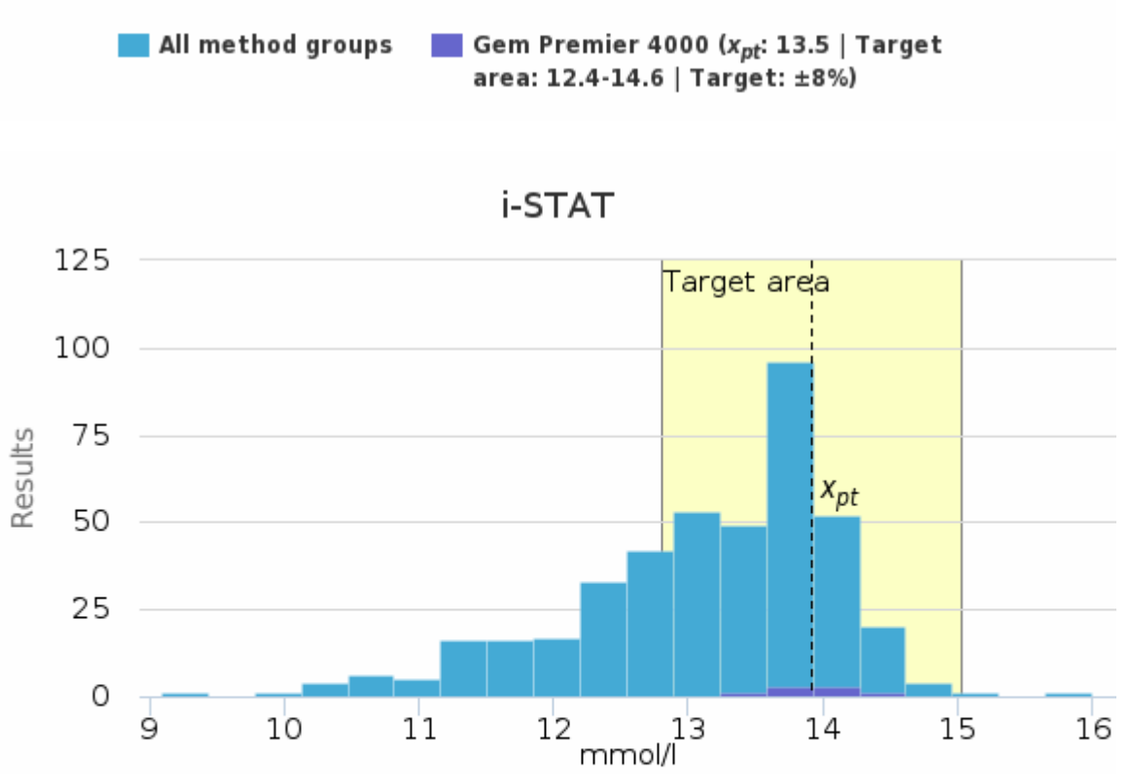


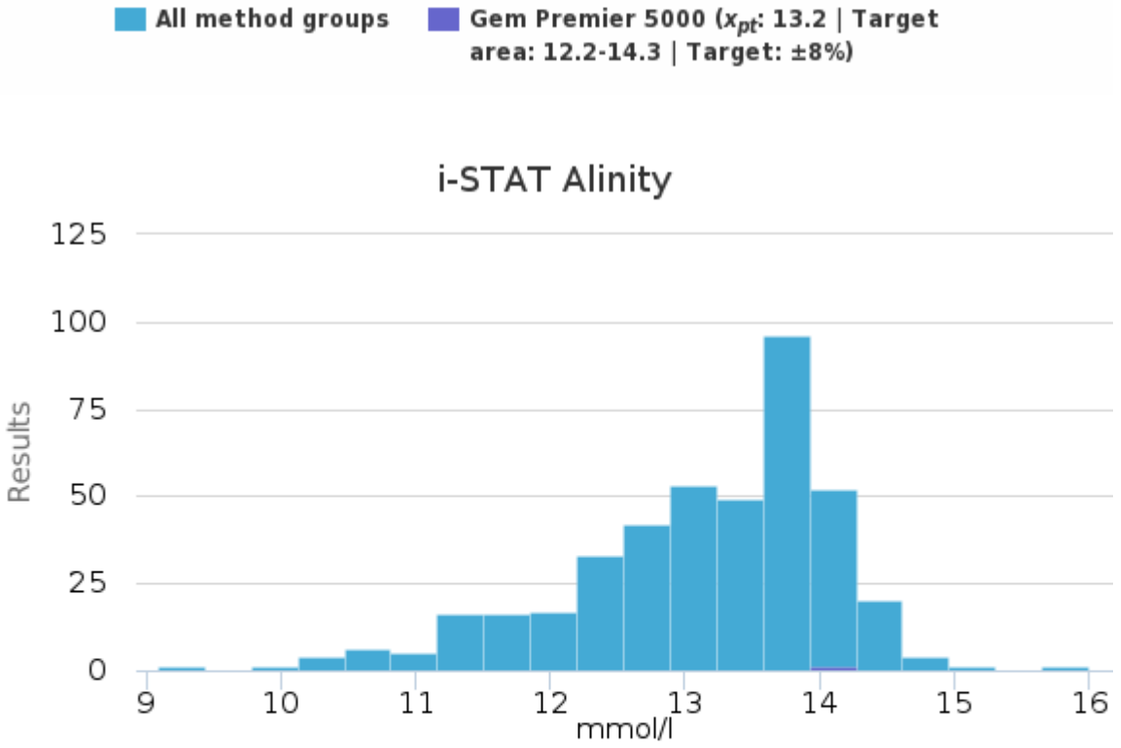
Acid-base status and electrolytes, February, 1-2023

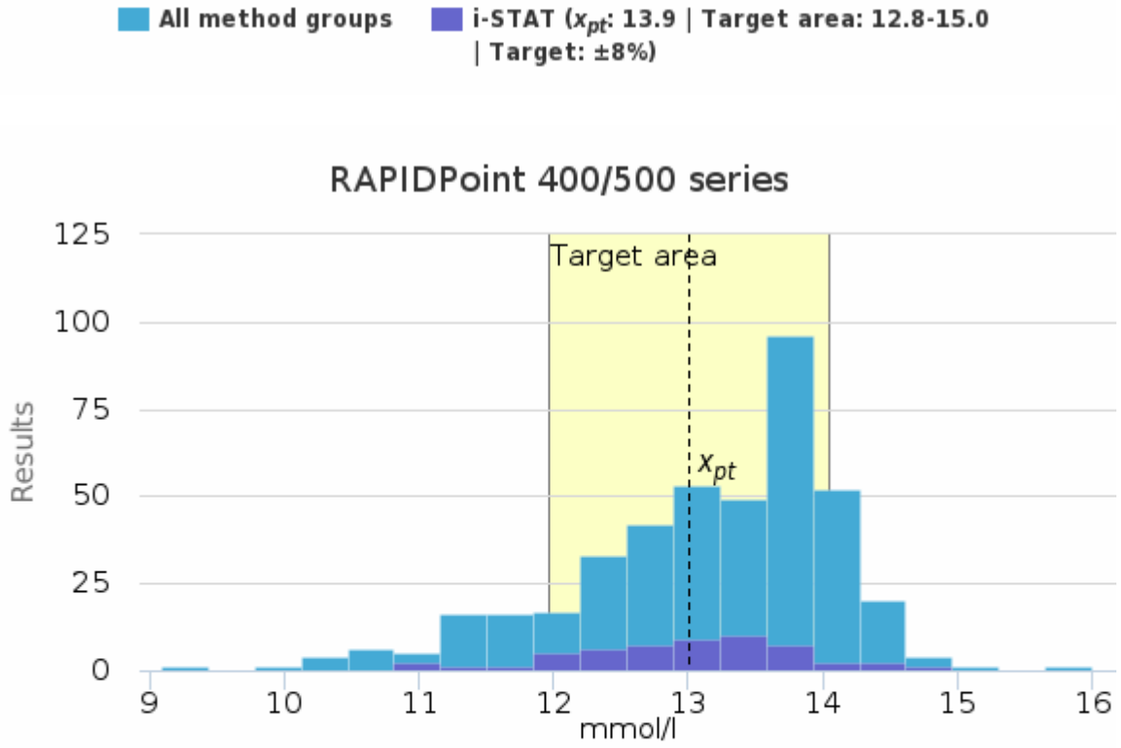


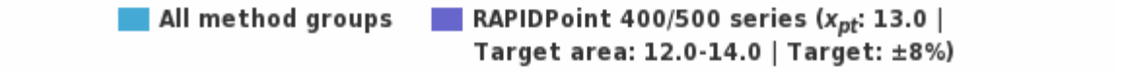








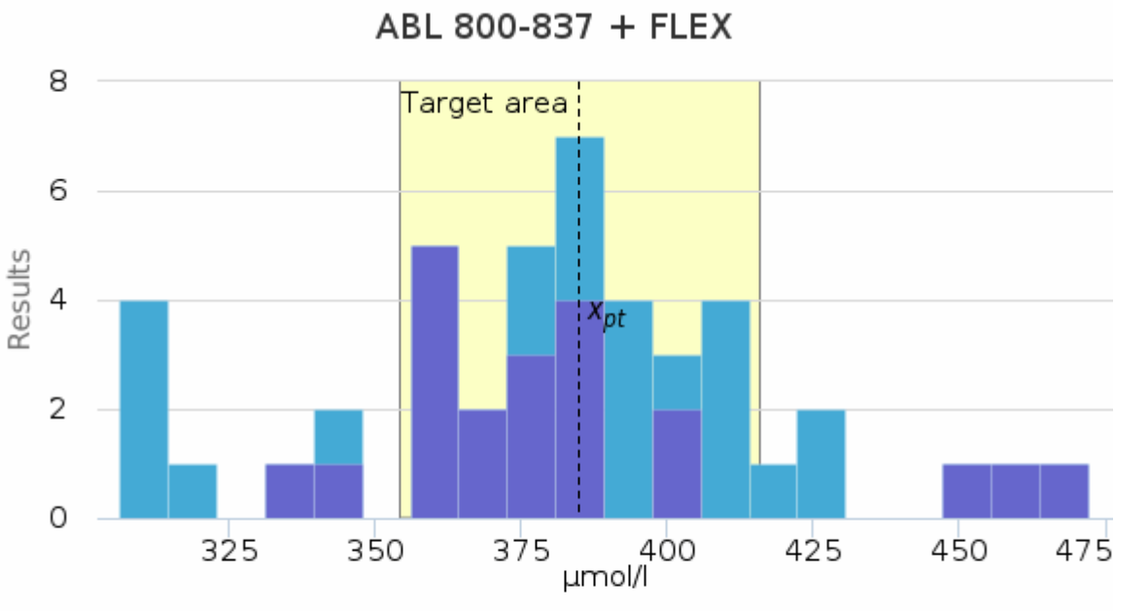


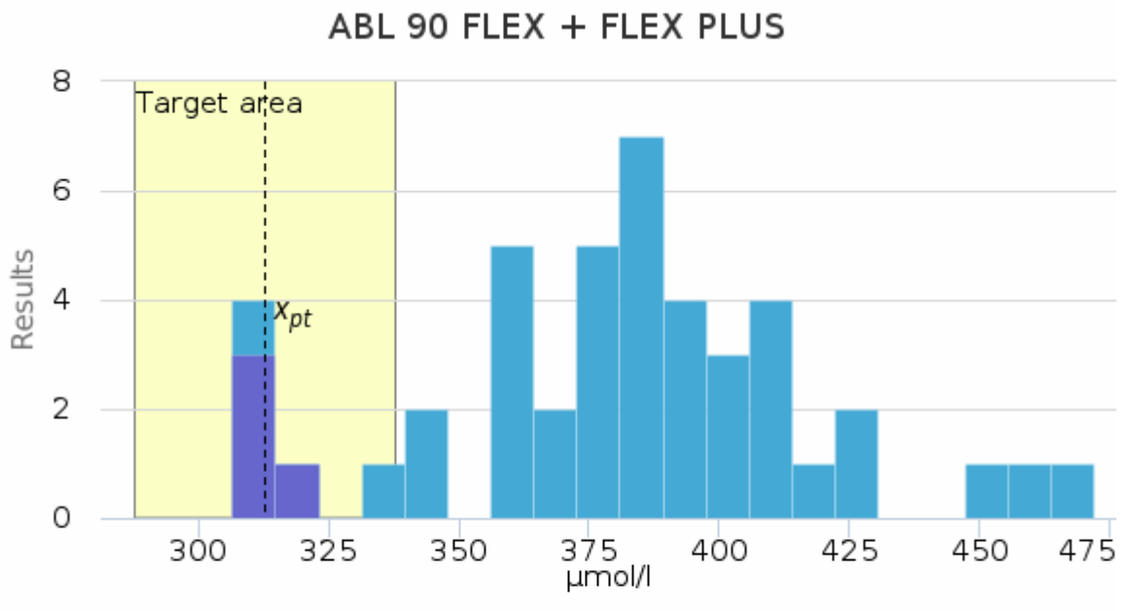


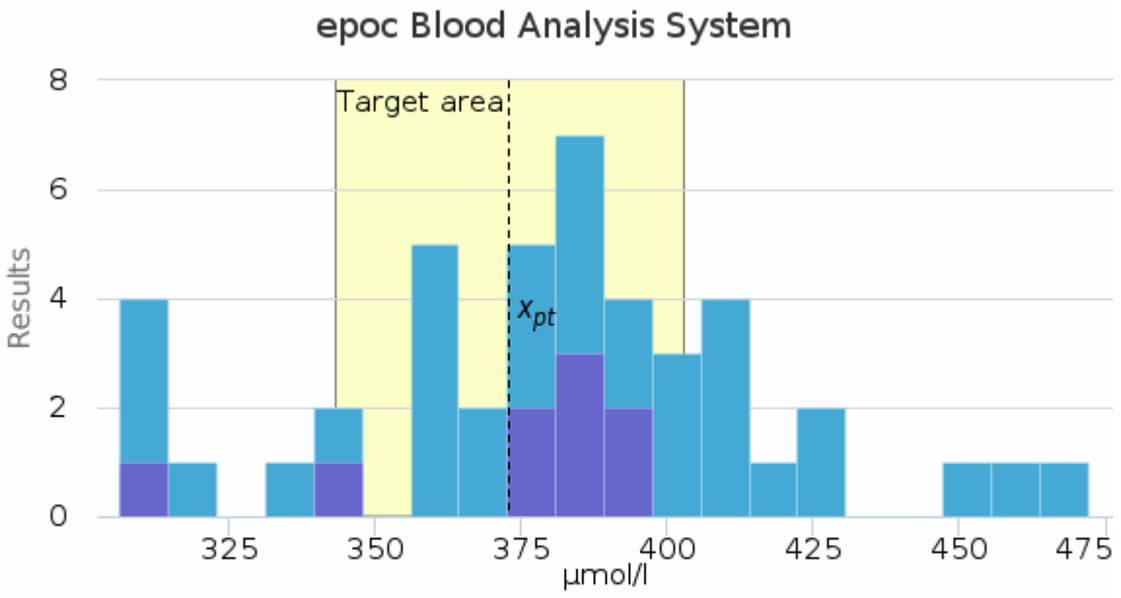
Sample S001 | Crea, µmol/l

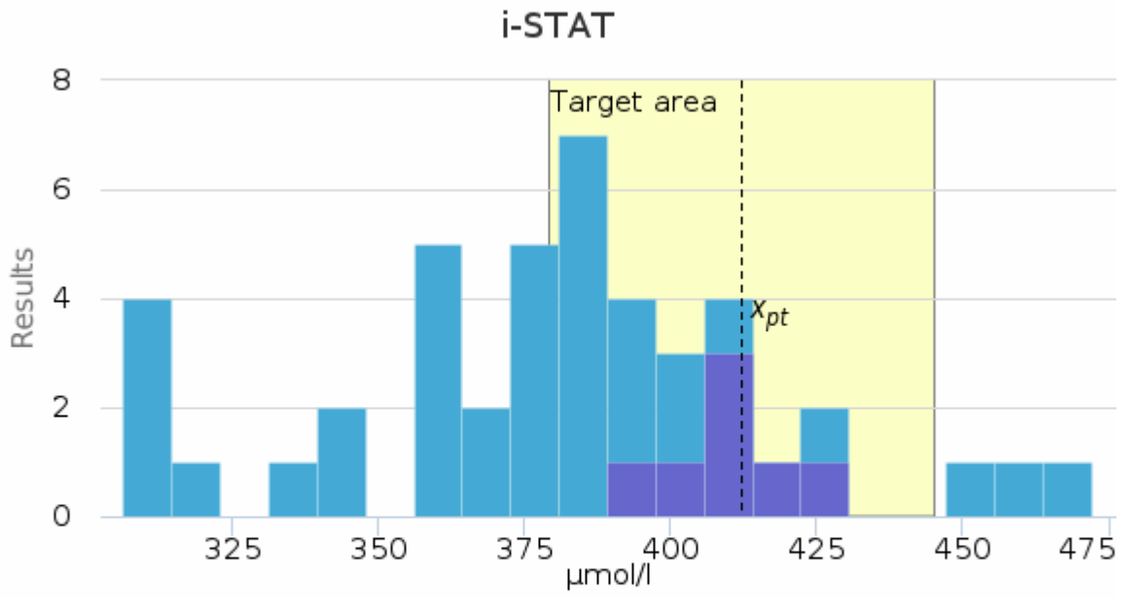
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	385	376	36	9.4	8	336	472	-	21
ABL 90 FLEX + FLEX PLUS	313	314	5	1.5	2	307	318	-	4
epoc Blood Analysis System	373	385	29	7.7	10	310	397	-	9
i-STAT	412	412	9	2.3	4	397	424	-	7
i-STAT Alinity	410	412	19	4.7	11	390	428	-	3
All	**382**	**386**	**38**	**10.0**	**6**	**307**	**472**	**-**	**44**

Sample S001 | Crea, µmol/l| histogram summaries in LabScala

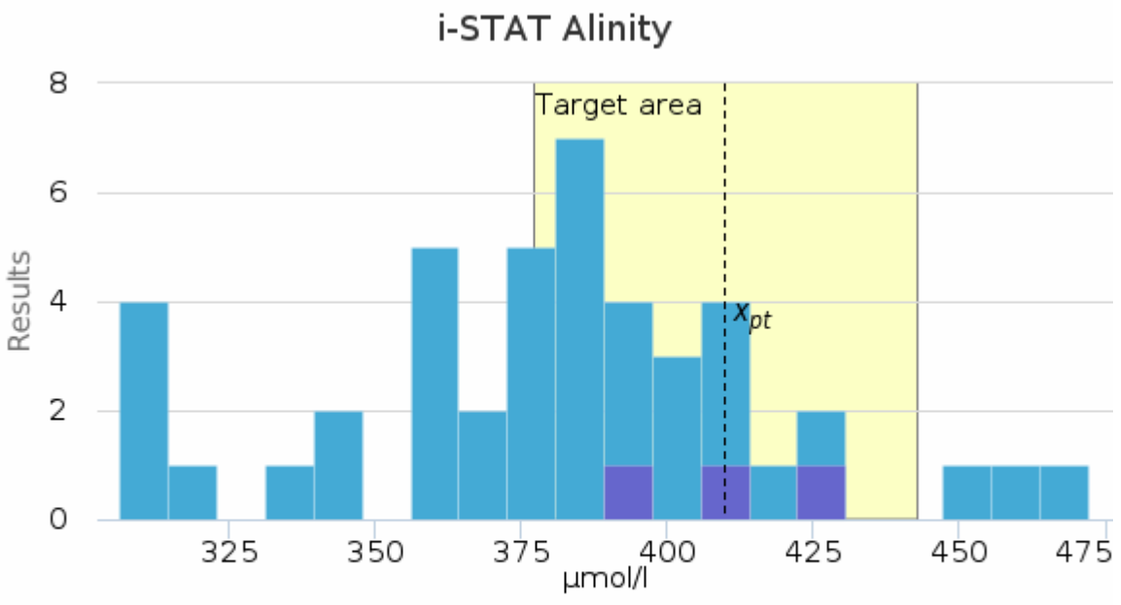








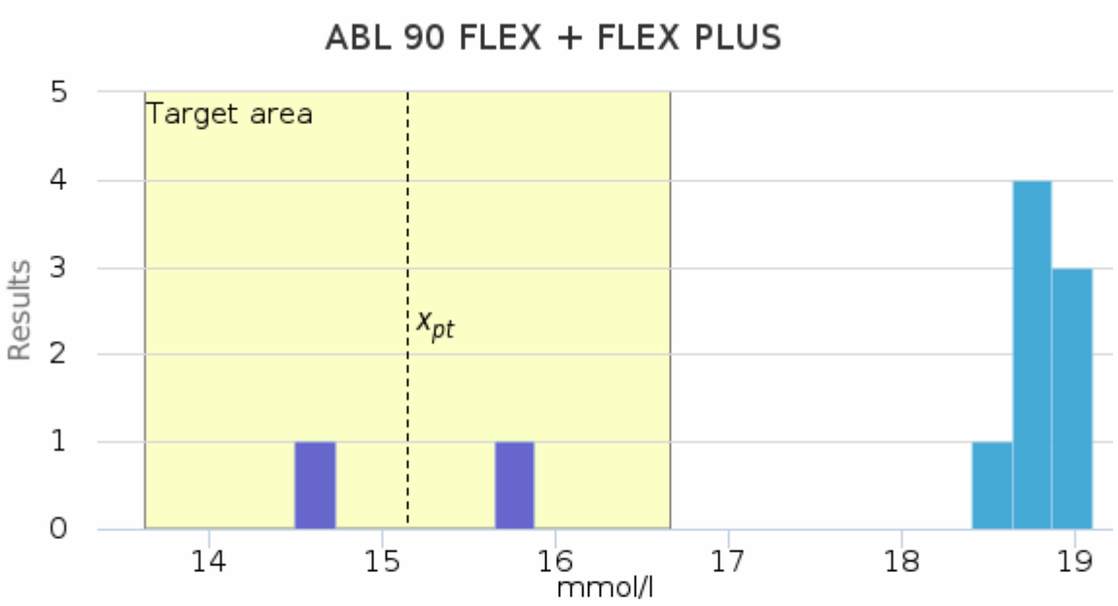
Acid-base status and electrolytes, February, 1-2023

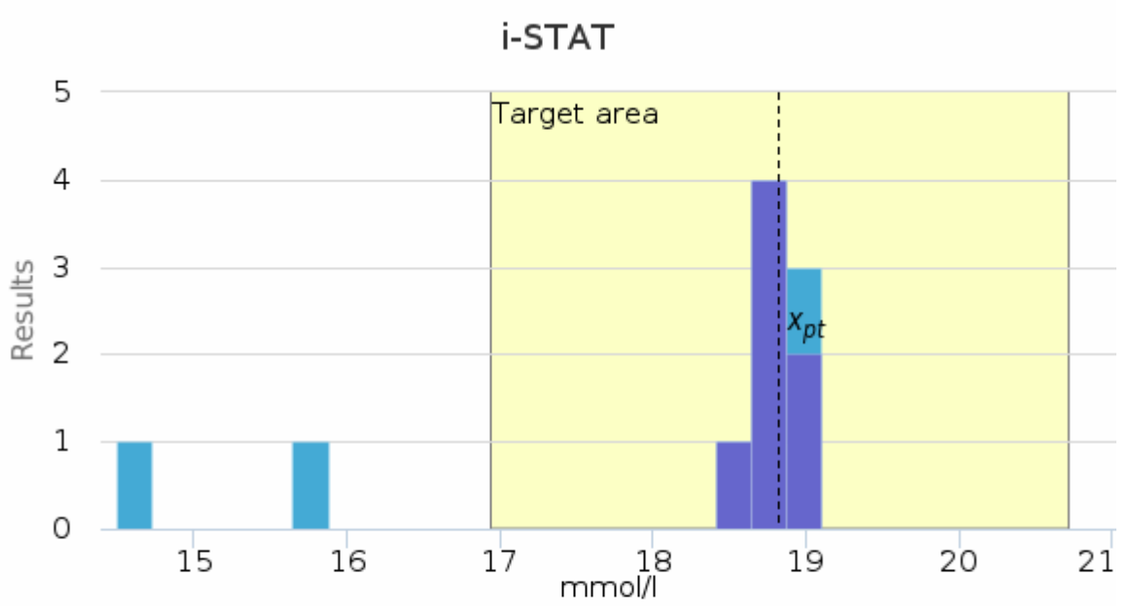


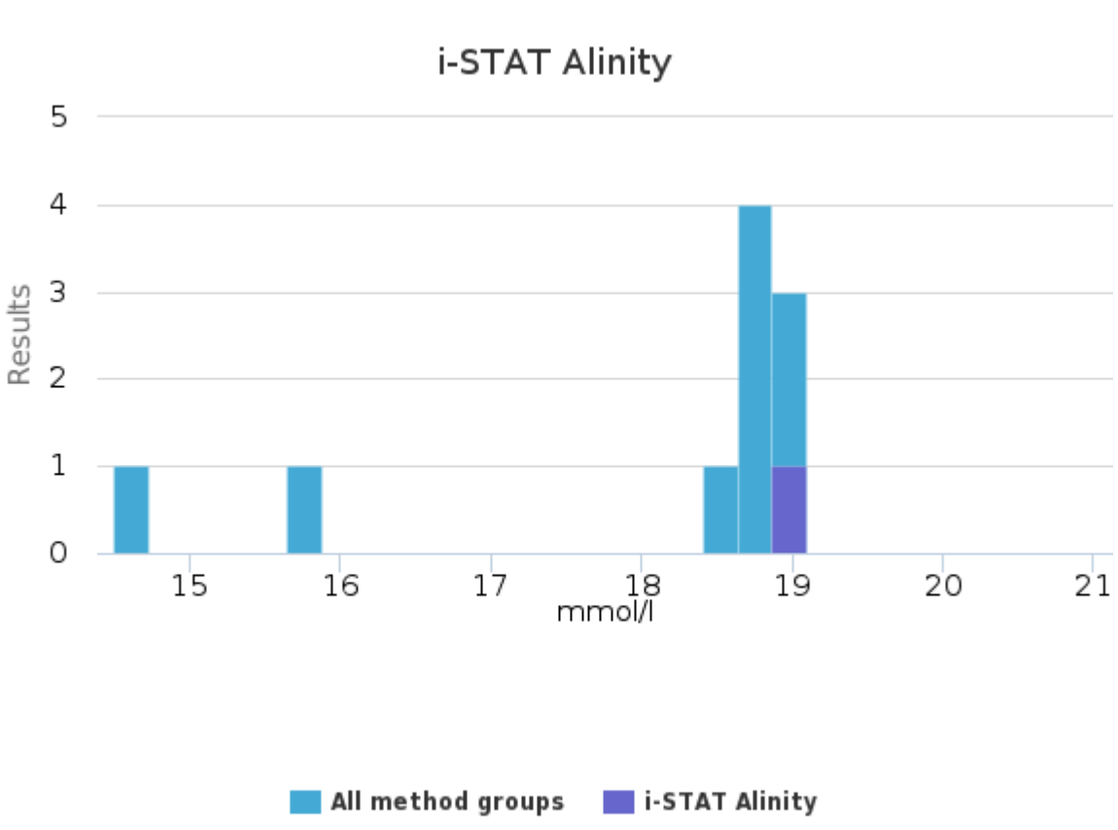
Sample S001 | Urea, mmol/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 90 FLEX + FLEX PLUS	15.2	15.2	0.9	6.1	0.7	14.5	15.8	-	2
i-STAT	18.8	18.8	0.2	0.9	<0.1	18.6	19.1	-	7
i-STAT Alinity	-	-	-	-	-	18.9	18.9	-	1
All	**18.1**	**18.8**	**1.6**	**8.8**	**0.5**	**14.5**	**19.1**	**-**	**10**

Sample S001 | Urea, mmol/l| histogram summaries in LabScala



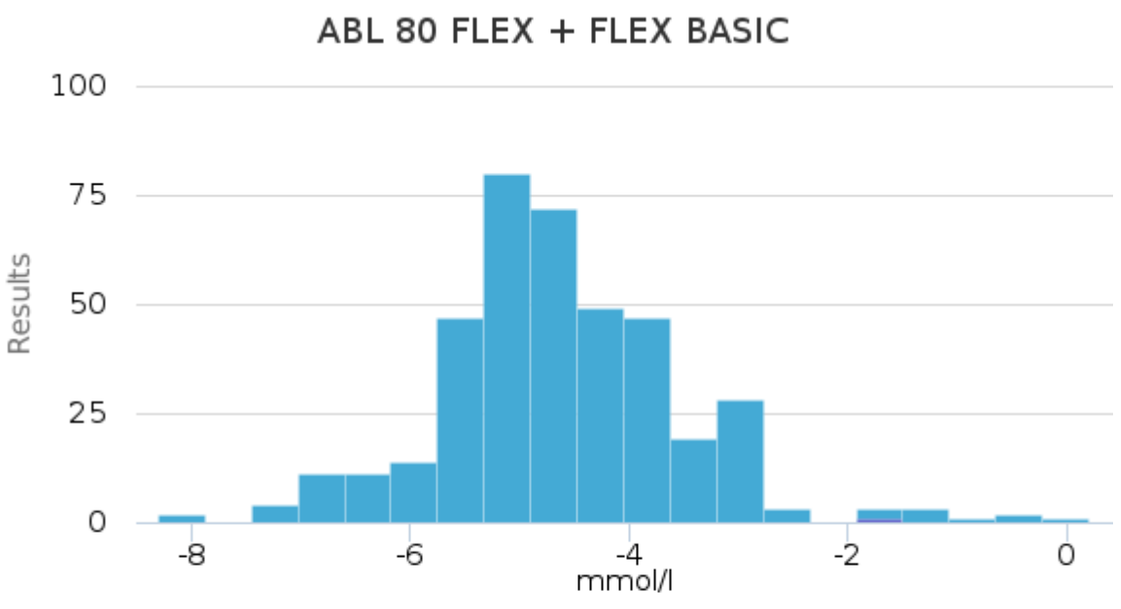


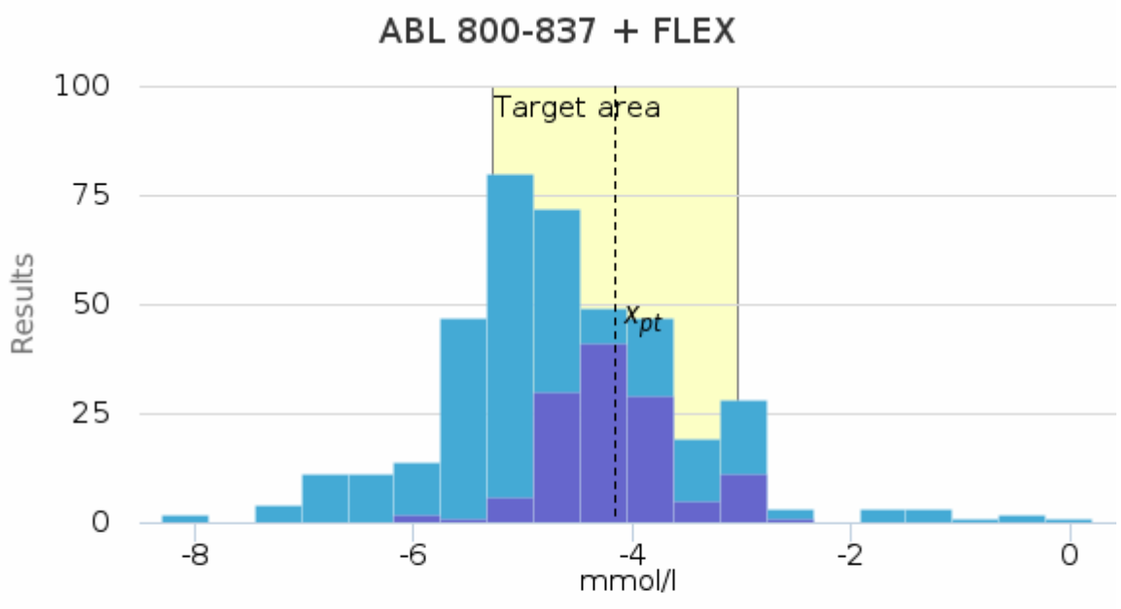


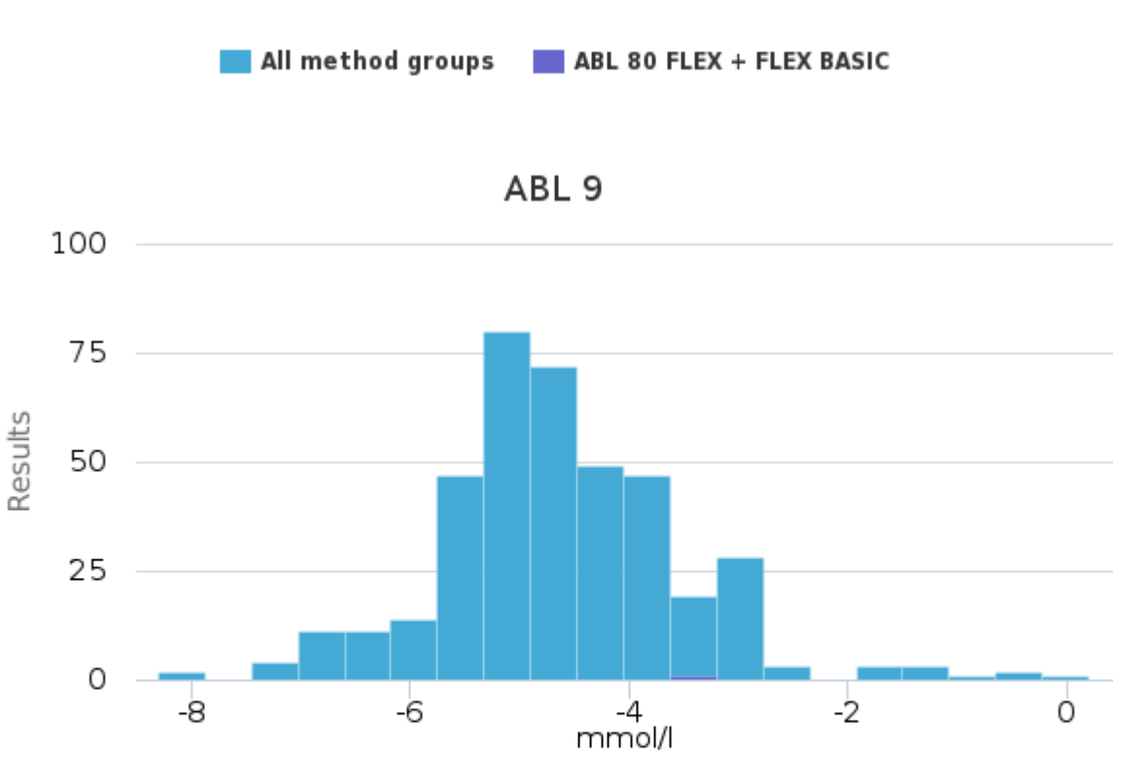
Sample S001 | Base excess, mmol/l

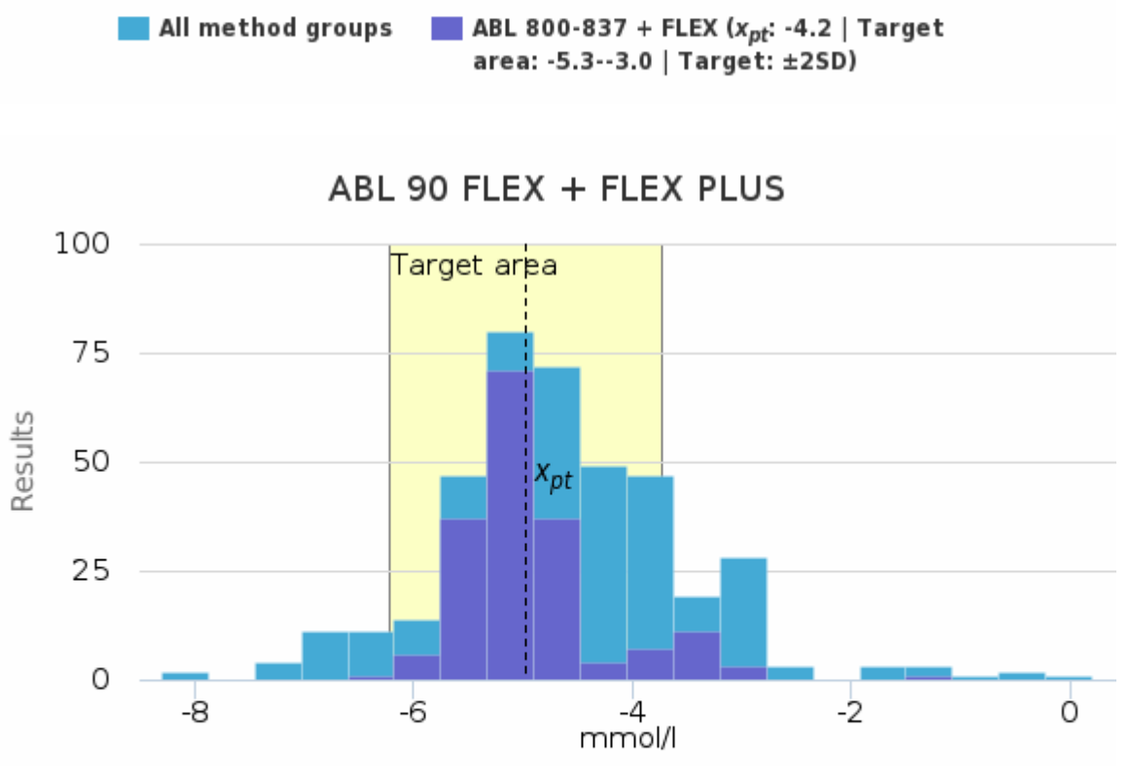
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	-	-	-	-	-	-1.7	-1.7	-	1
ABL 800-837 + FLEX	-4.2	-4.2	0.6	13.5	<0.1	-5.9	-2.6	1	126
ABL 9	-	-	-	-	-	-3.5	-3.5	-	1
ABL 90 FLEX + FLEX PLUS	-5.0	-5.1	0.6	12.5	<0.1	-6.2	-3.1	2	178
Cobas b 221 / AVL 9180	-3.3	-3.3	0.5	14.6	0.2	-4.0	-2.7	-	7
epoc Blood Analysis System	-4.9	-4.7	0.5	11.0	0.2	-5.7	-4.4	-	6
Gem Premier 3000-3500	-1.5	-1.5	0.6	37.7	0.4	-1.9	-1.1	-	2
Gem Premier 4000	-1.9	-1.9	0.7	37.2	0.5	-2.4	-1.4	-	2
Gem Premier 5000	-1.2	-0.7	1.4	122.4	0.6	-3.8	0.2	-	6
i-STAT	-3.4	-3.0	0.5	15.0	0.1	-4.0	-3.0	1	15
i-STAT Alinity	-3.2	-3.0	0.4	14.0	0.2	-4.0	-3.0	-	5
RAPIDLab 1200 series (RL1240-RL1265)	-5.1	-4.6	1.4	26.9	0.8	-6.6	-4.0	-	3
RAPIDPoint 400/500 series	-6.3	-6.4	0.9	14.1	0.1	-8.3	-4.2	-	45
All	**-4.7**	**-4.8**	**1.0**	**21.2**	**<0.1**	**-7.3**	**-1.5**	**8**	**397**

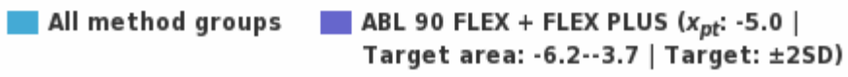
Sample S001 | Base excess, mmol/l| histogram summaries in LabScala



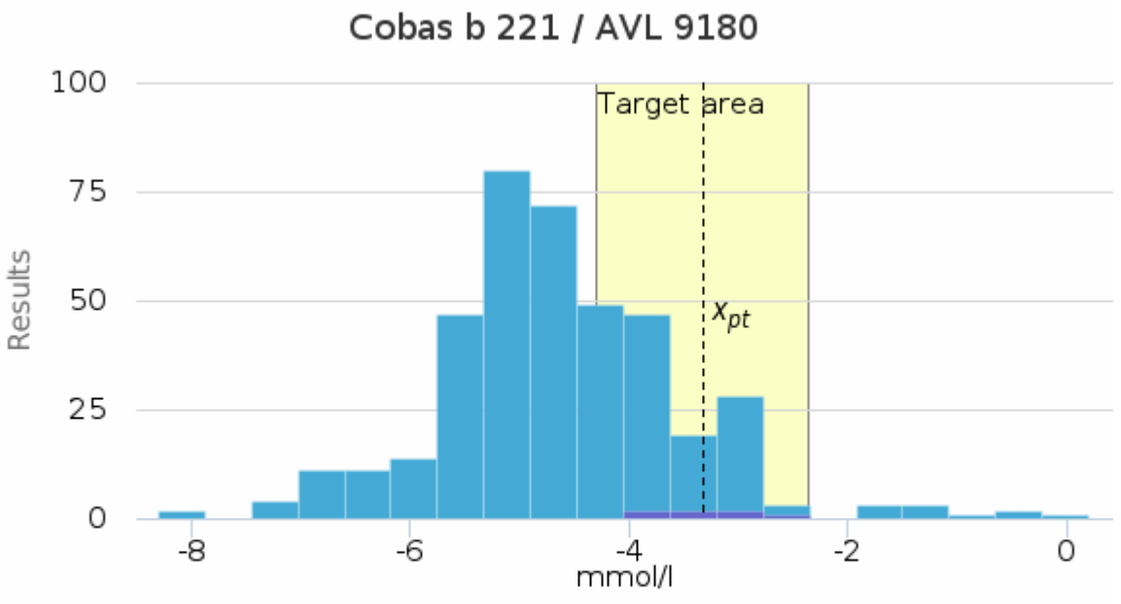


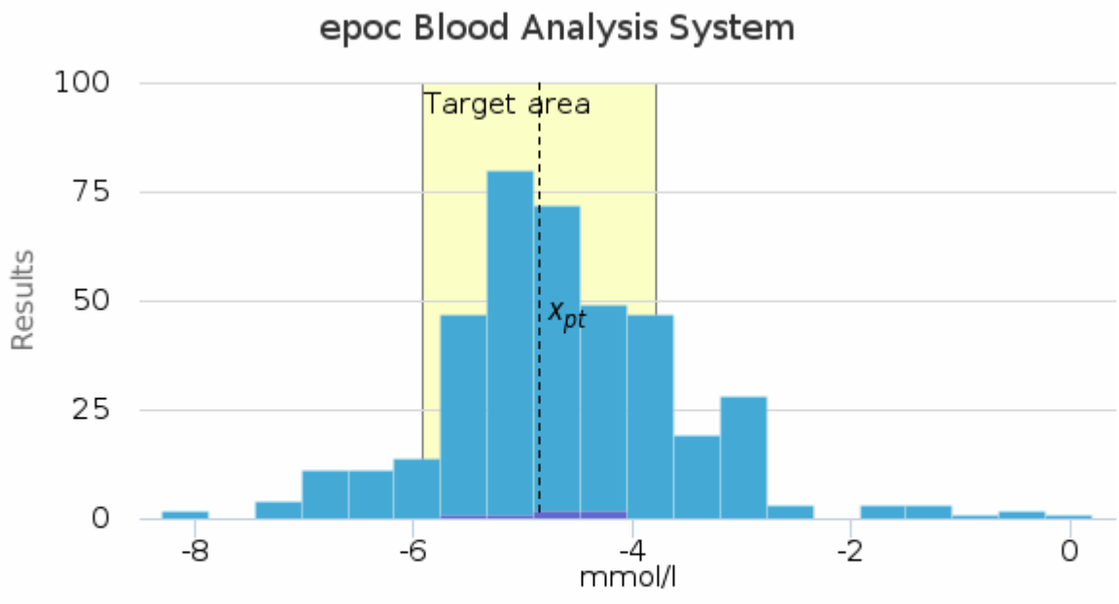






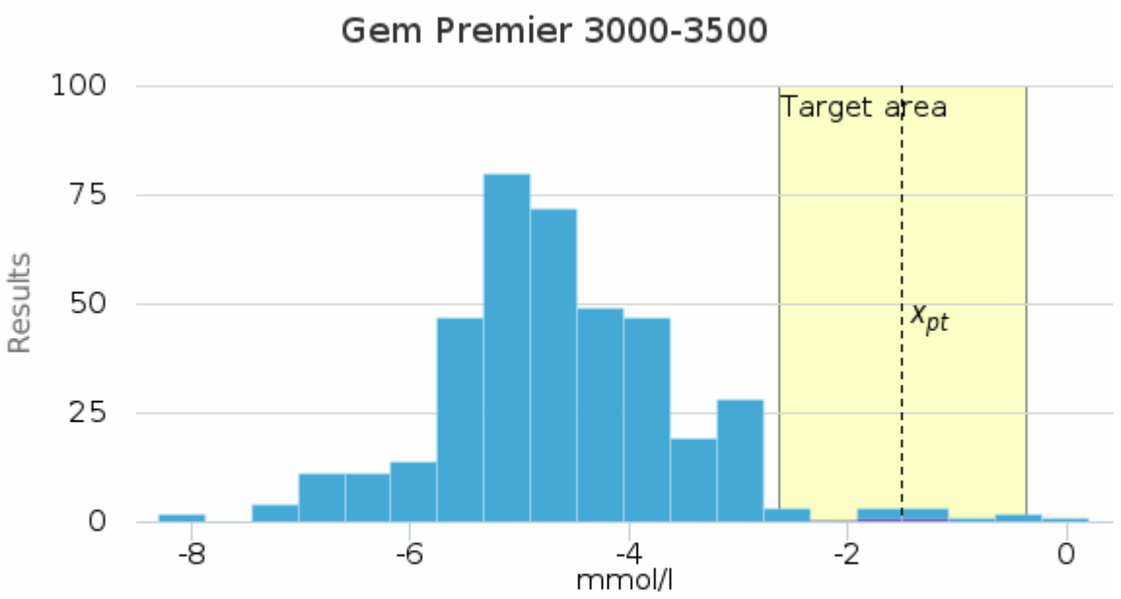
Acid-base status and electrolytes, February, 1-2023

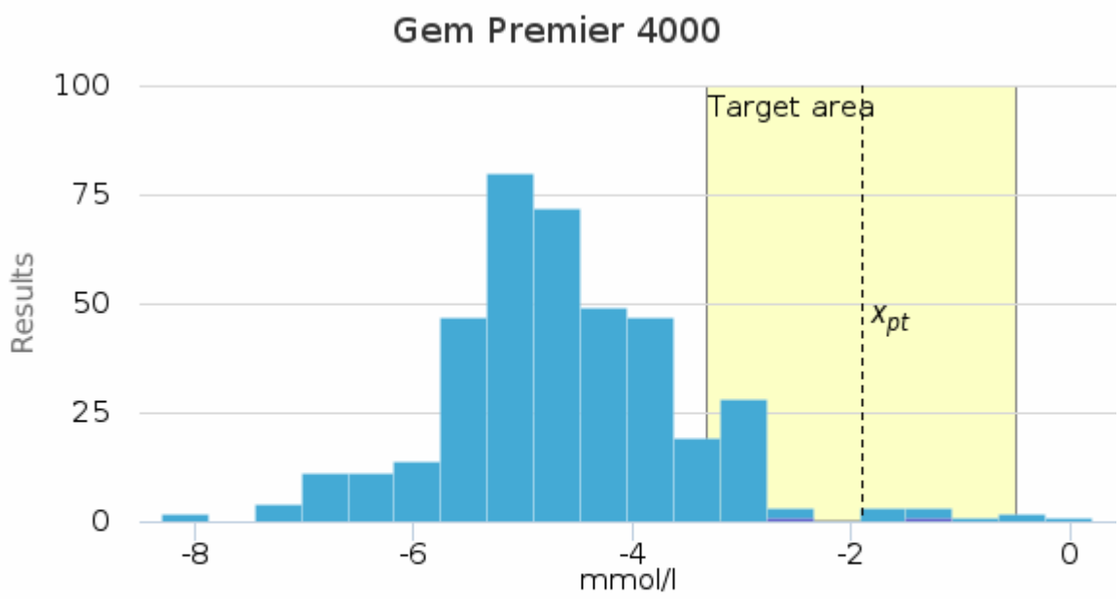




All method groups — Cobas b 221 / AVL 9180 (x_{pt}: -3.3 | Target area: -4.3--2.4 | Target: ±2SD)

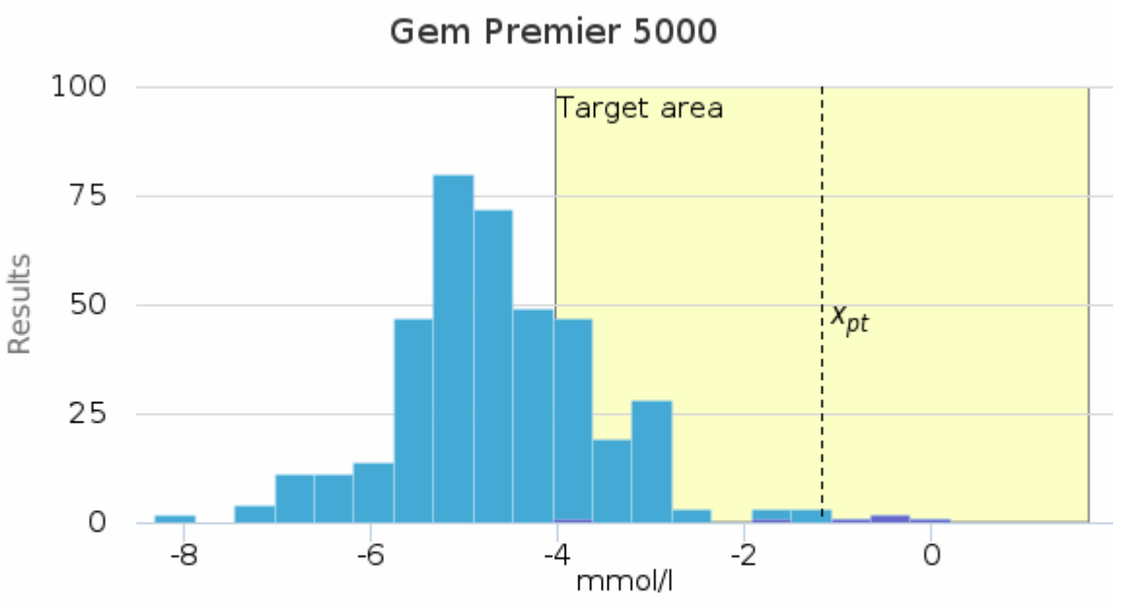
All method groups — epoc Blood Analysis System (x_{pt}: -4.9 | Target area: -5.9--3.8 | Target: ±2SD)

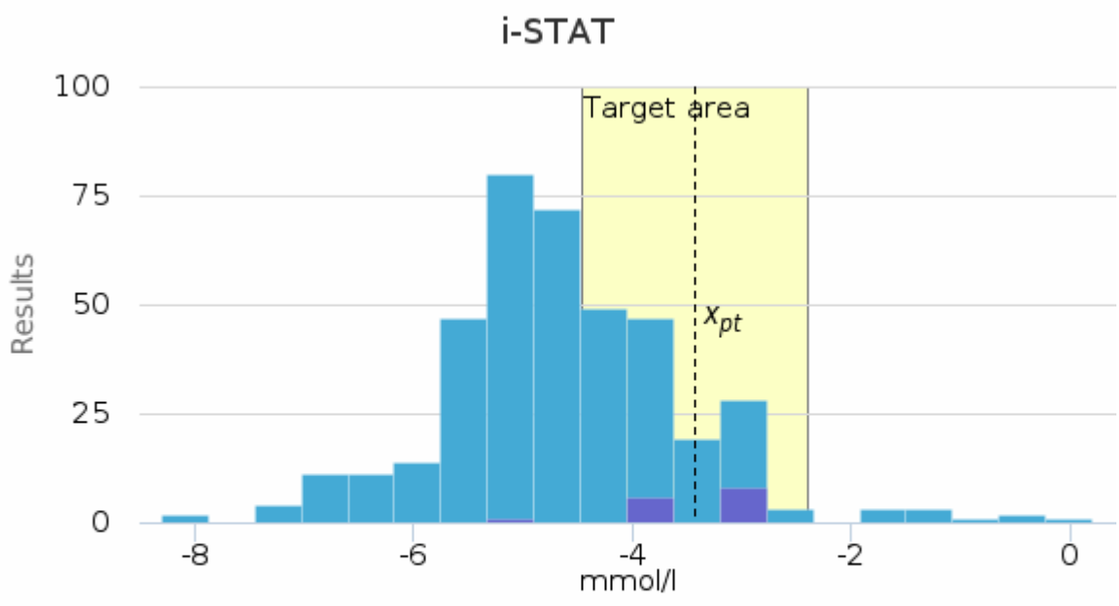




All method groups — Gem Premier 3000-3500 (x_{pt}: -1.5 | Target area: -2.6--0.4 | Target: ±2SD)

All method groups — Gem Premier 4000 (x_{pt}: -1.9 | Target area: -3.3--0.5 | Target: ±2SD)

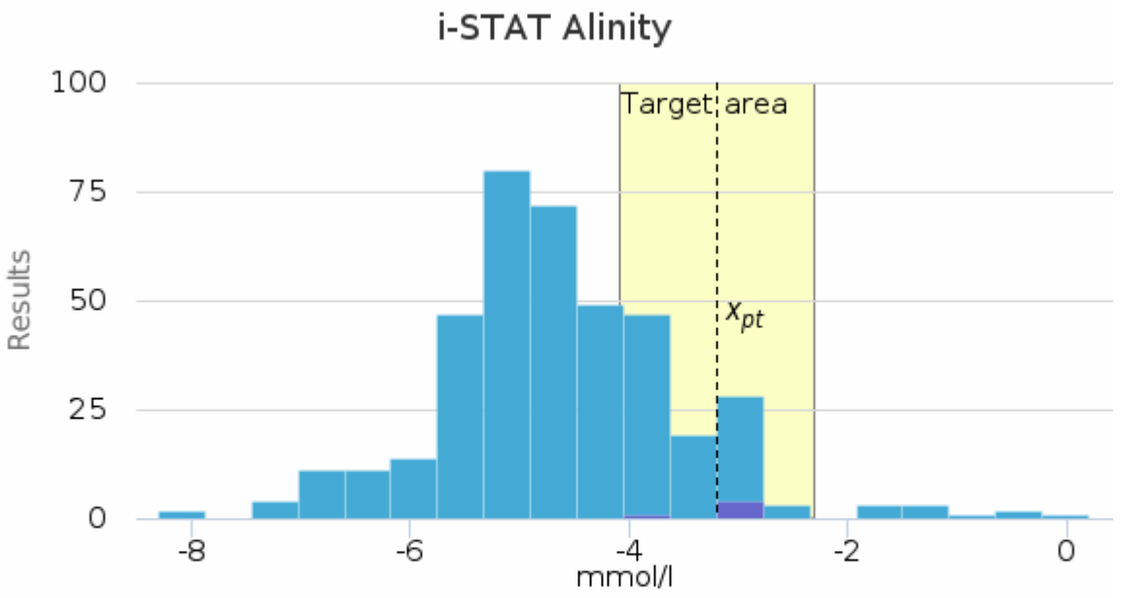


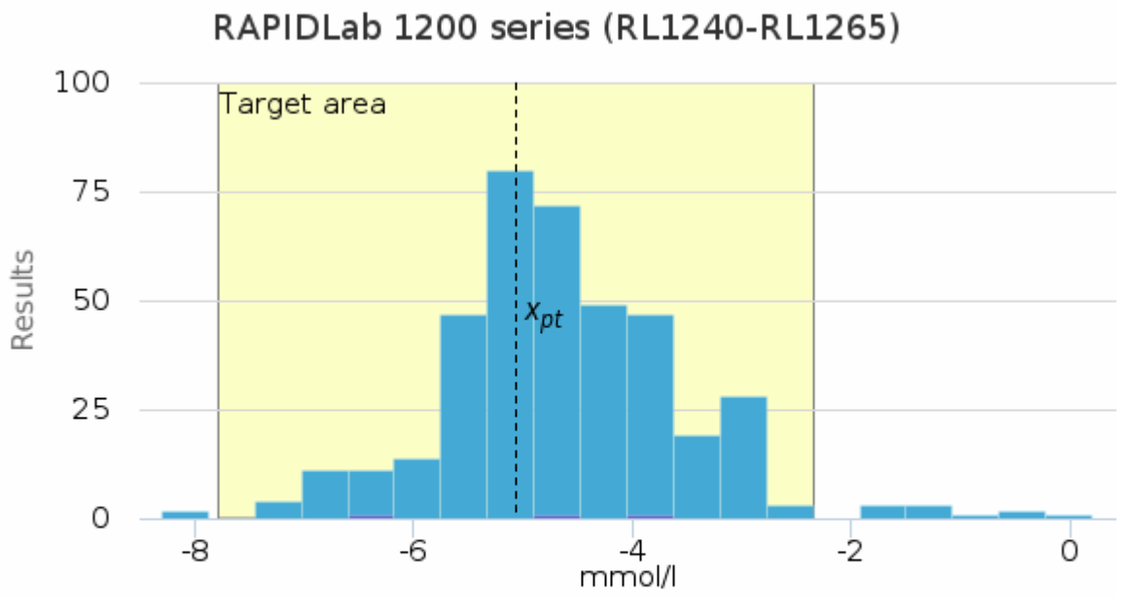


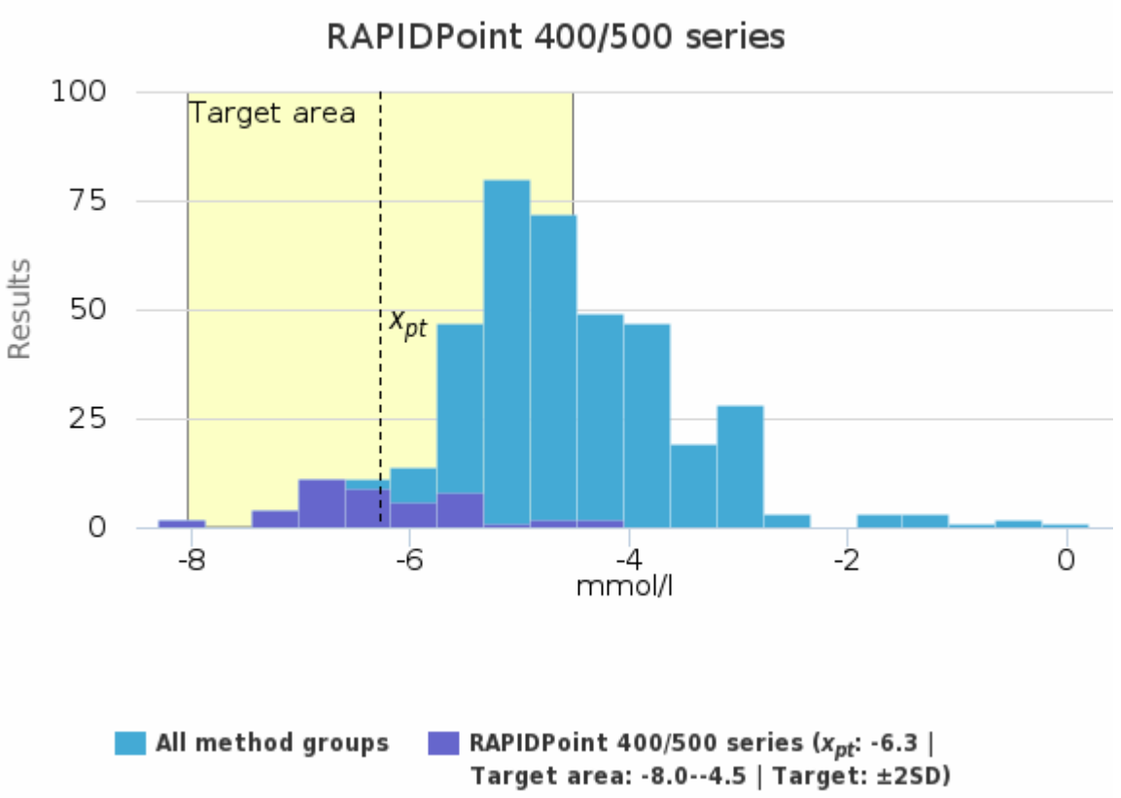
All method groups — Gem Premier 5000 (x_{pt}: -1.2 | Target area: -4.0-1.7 | Target: ±2SD)

All method groups — i-STAT (x_{pt}: -3.4 | Target area: -4.5--2.4 | Target: ±2SD)

Acid-base status and electrolytes, February, 1-2023



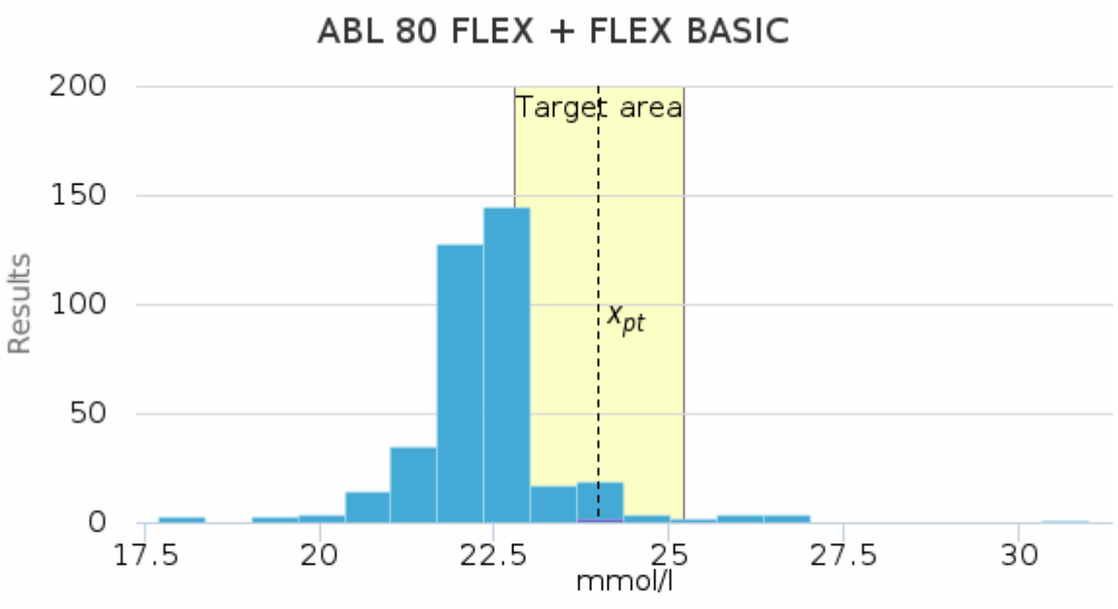


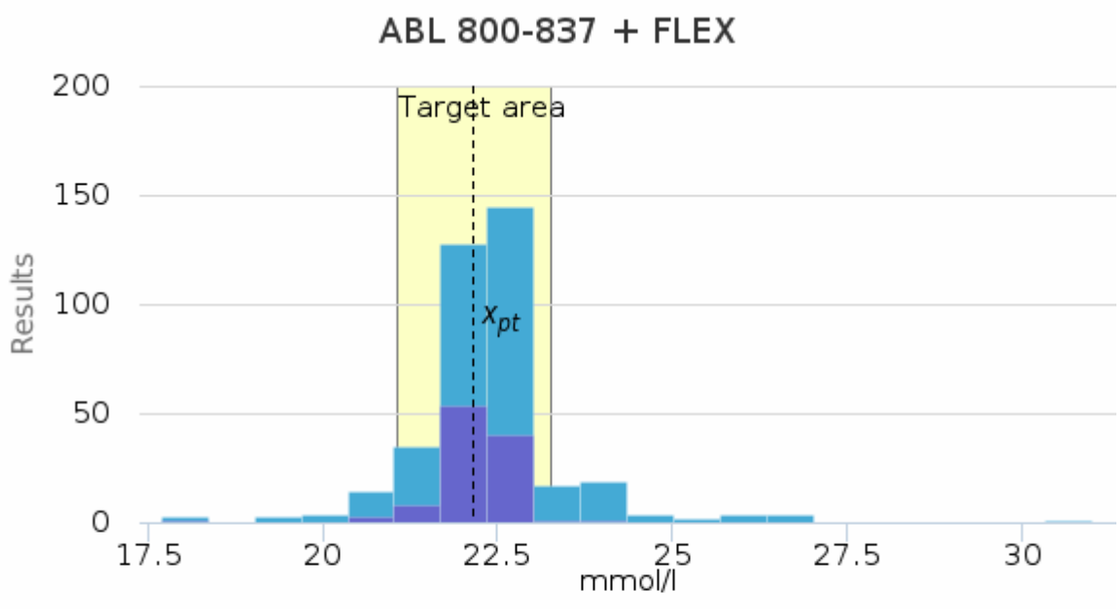


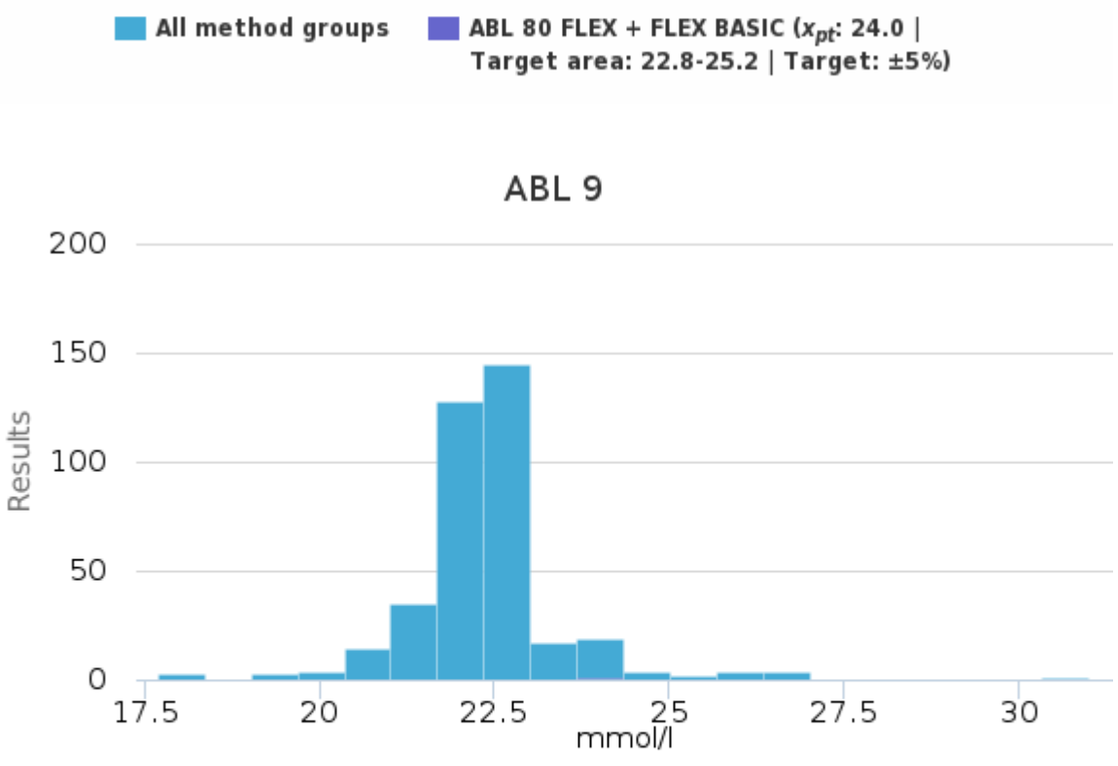
Sample S001 | HCO3, mmol/l

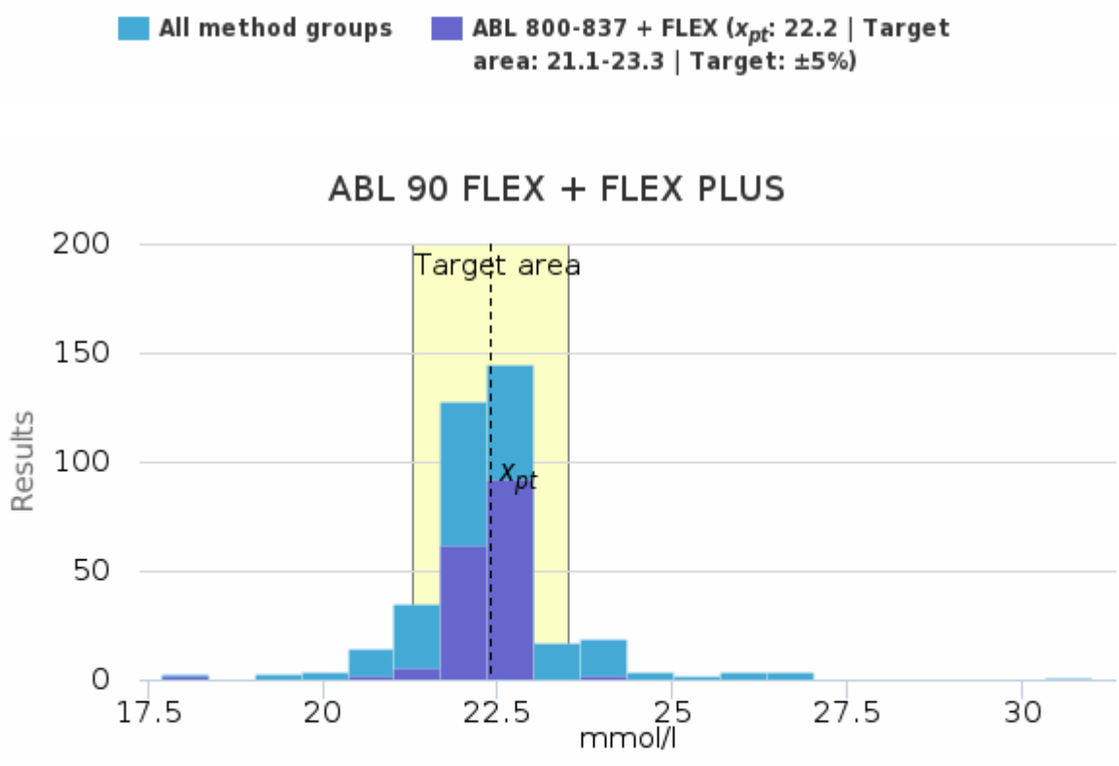
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	24.0	24.0	0.1	0.6	0.1	23.9	24.1	-	2
ABL 800-837 + FLEX	22.2	22.2	0.5	2.1	<0.1	20.4	23.4	2	108
ABL 9	-	-	-	-	-	23.7	23.7	-	1
ABL 90 FLEX + FLEX PLUS	22.4	22.4	0.4	1.9	<0.1	20.8	23.9	2	165
Cobas b 221 / AVL 9180	24.3	24.2	0.2	0.7	<0.1	24.1	24.6	-	7
epoc Blood Analysis System	21.3	21.5	0.4	1.7	0.1	20.7	21.7	-	8
Gem Premier 3000-3500	26.2	26.3	0.6	2.3	0.3	25.3	26.9	-	5
Gem Premier 4000	24.4	23.8	1.3	5.2	0.7	23.6	25.9	-	3
Gem Premier 5000	25.9	25.2	2.5	9.6	0.9	23.5	31.0	-	8
i-STAT	23.2	23.2	0.6	2.5	0.1	22.2	24.0	-	15
i-STAT Alinity	23.4	23.3	0.4	1.6	0.2	23.1	23.9	-	6
RAPIDLab 1200 series (RL1240-RL1265)	22.6	22.4	1.2	5.2	0.7	21.6	23.9	-	3
RAPIDPoint 400/500 series	21.5	21.4	1.1	4.9	0.1	19.1	23.6	1	52
All	**22.3**	**22.4**	**0.8**	**3.7**	**<0.1**	**19.1**	**25.4**	**12**	**383**

Sample S001 | HCO3, mmol/l| histogram summaries in LabScala

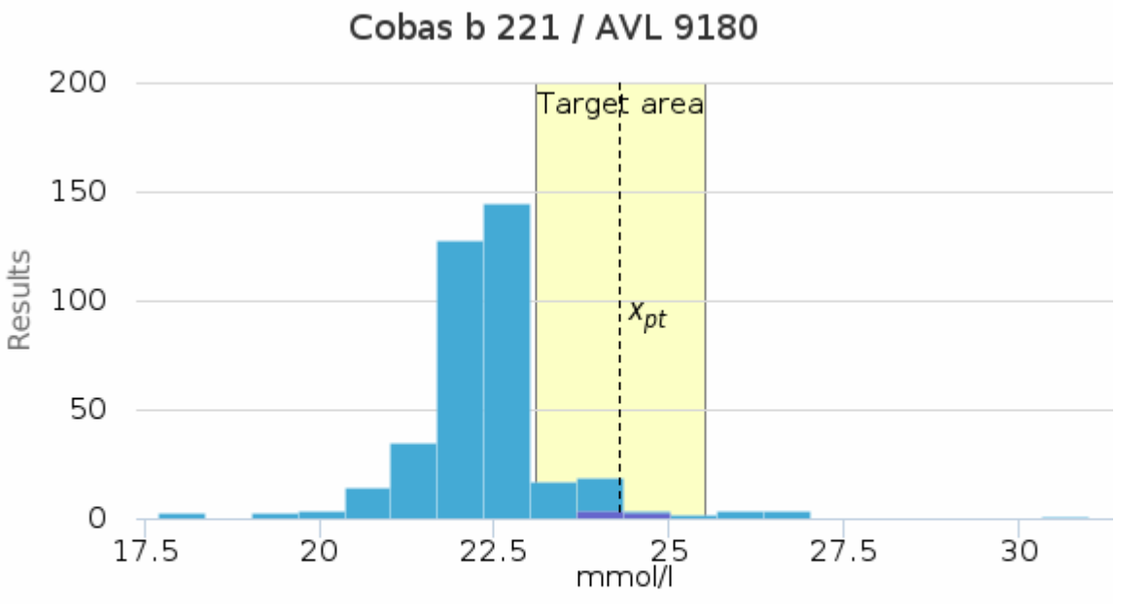


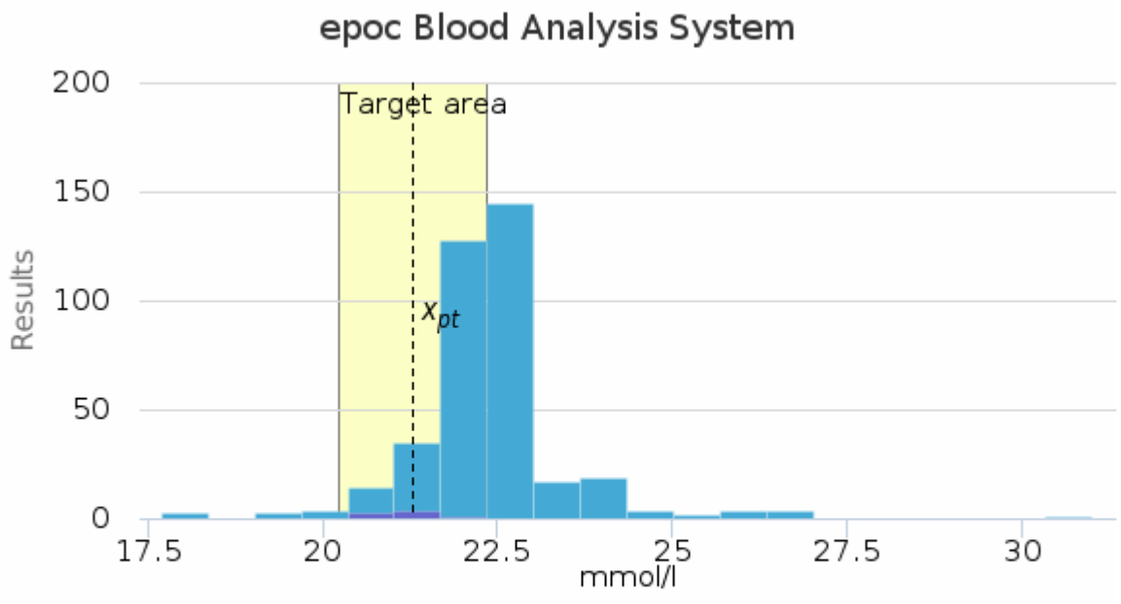


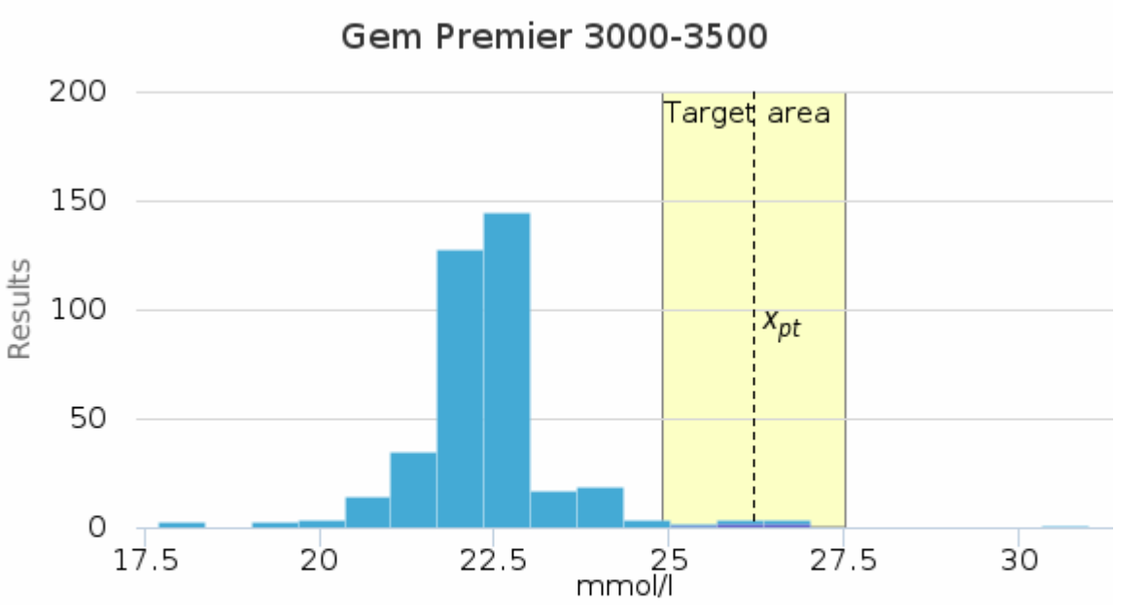


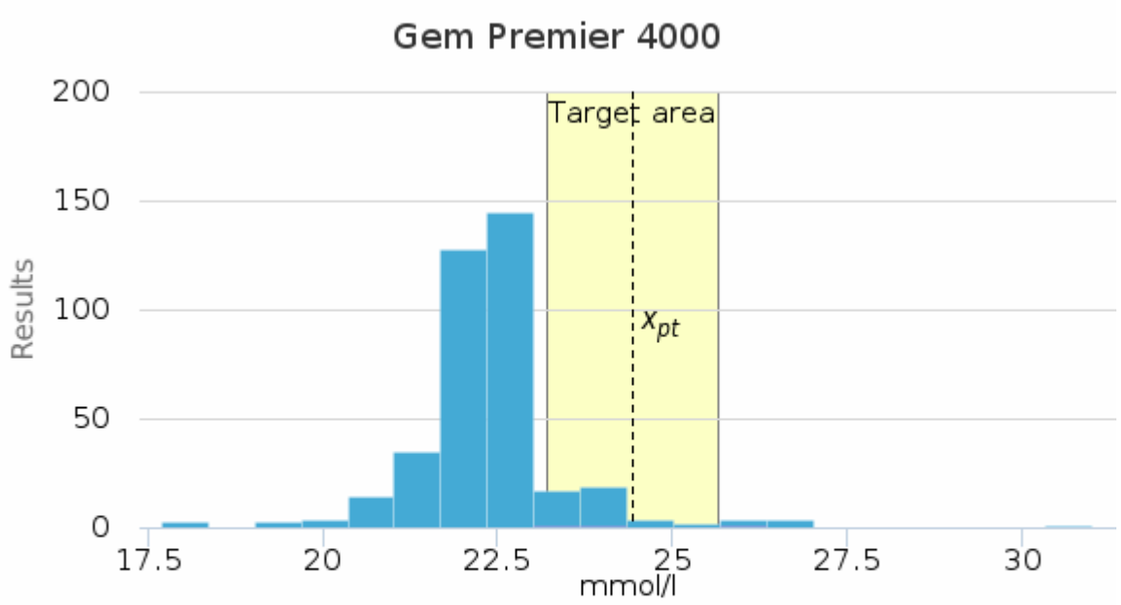


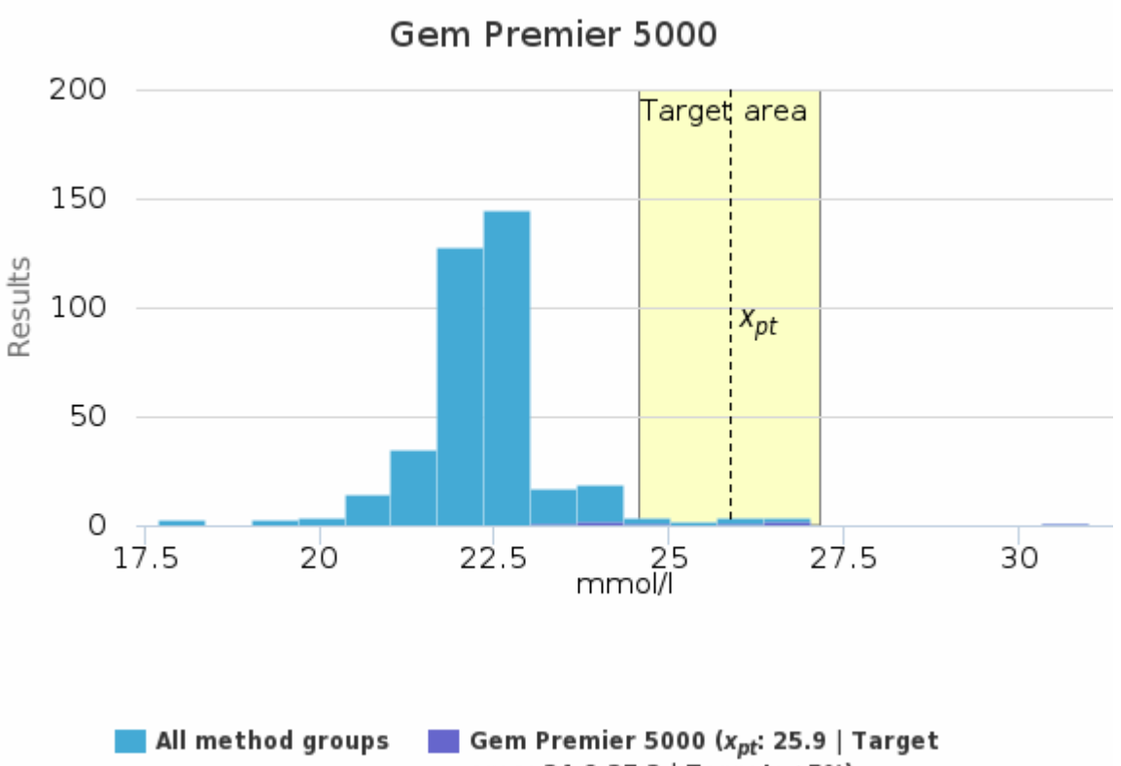
Acid-base status and electrolytes, February, 1-2023

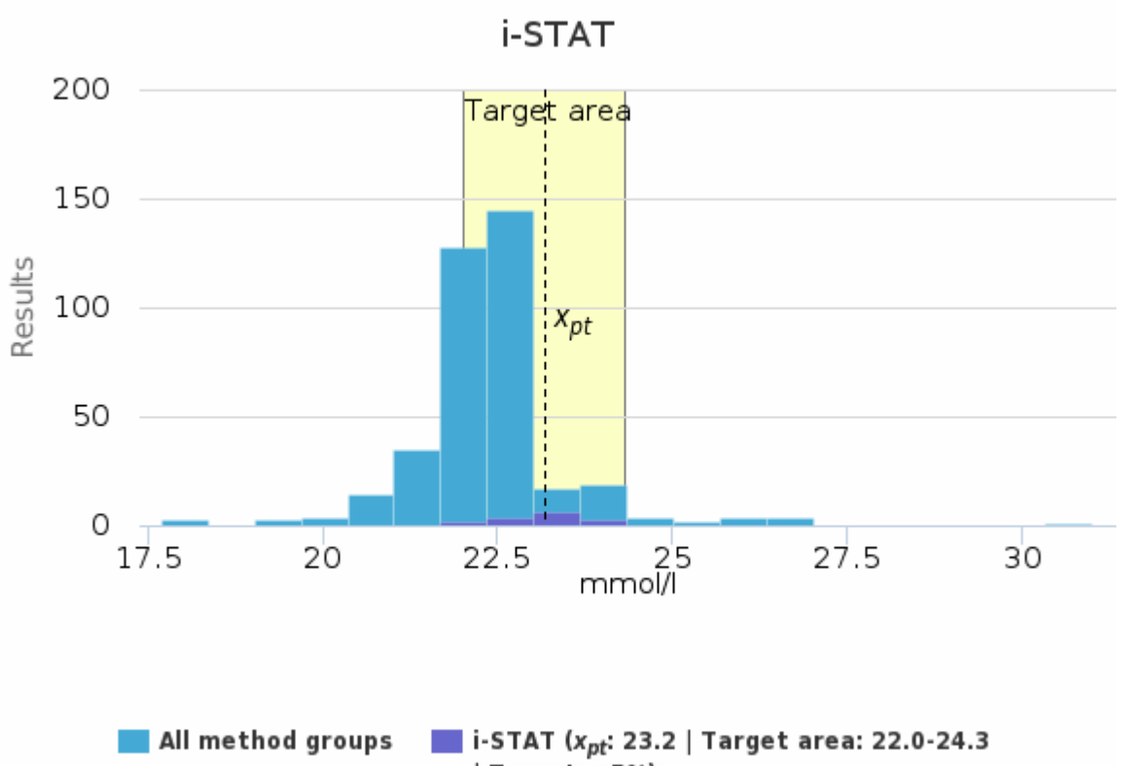




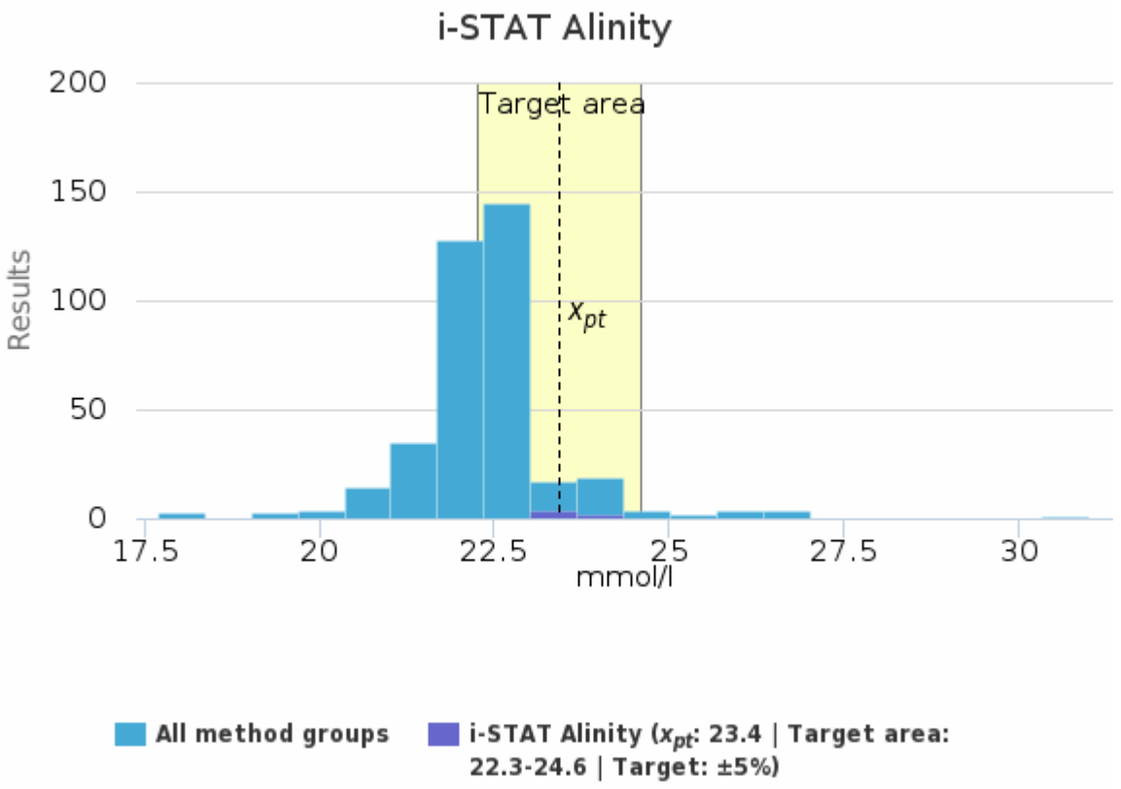


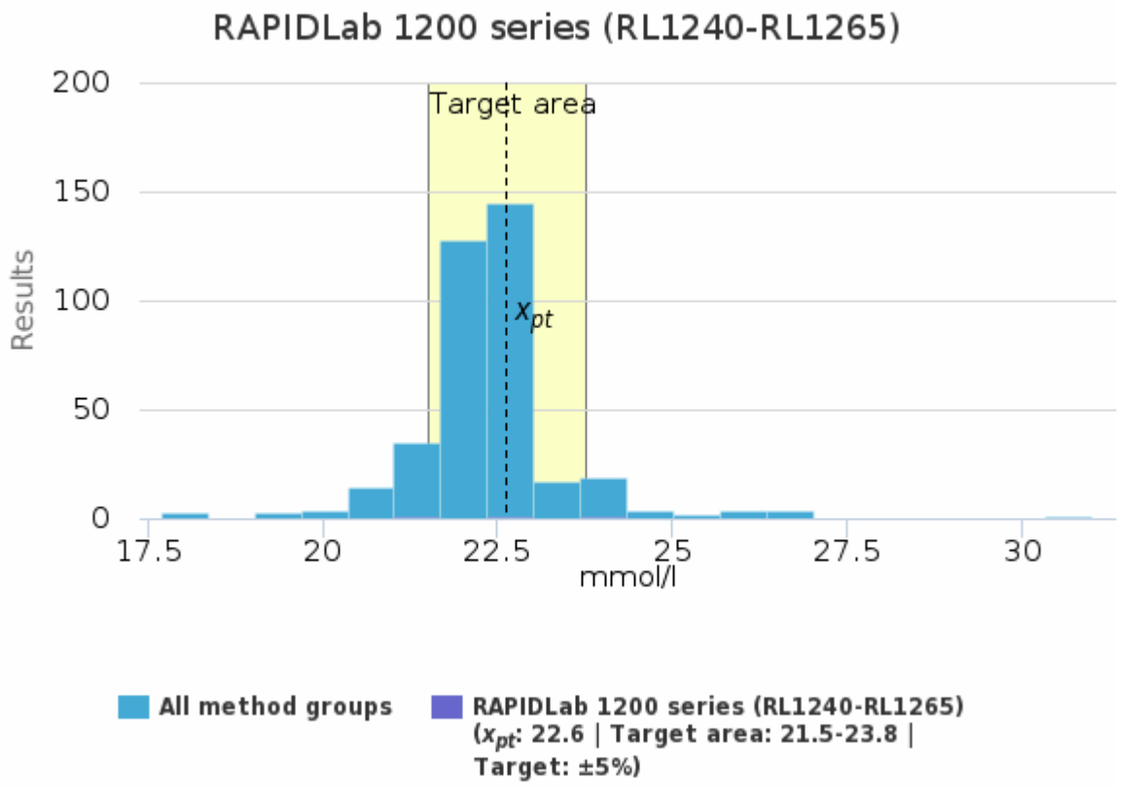


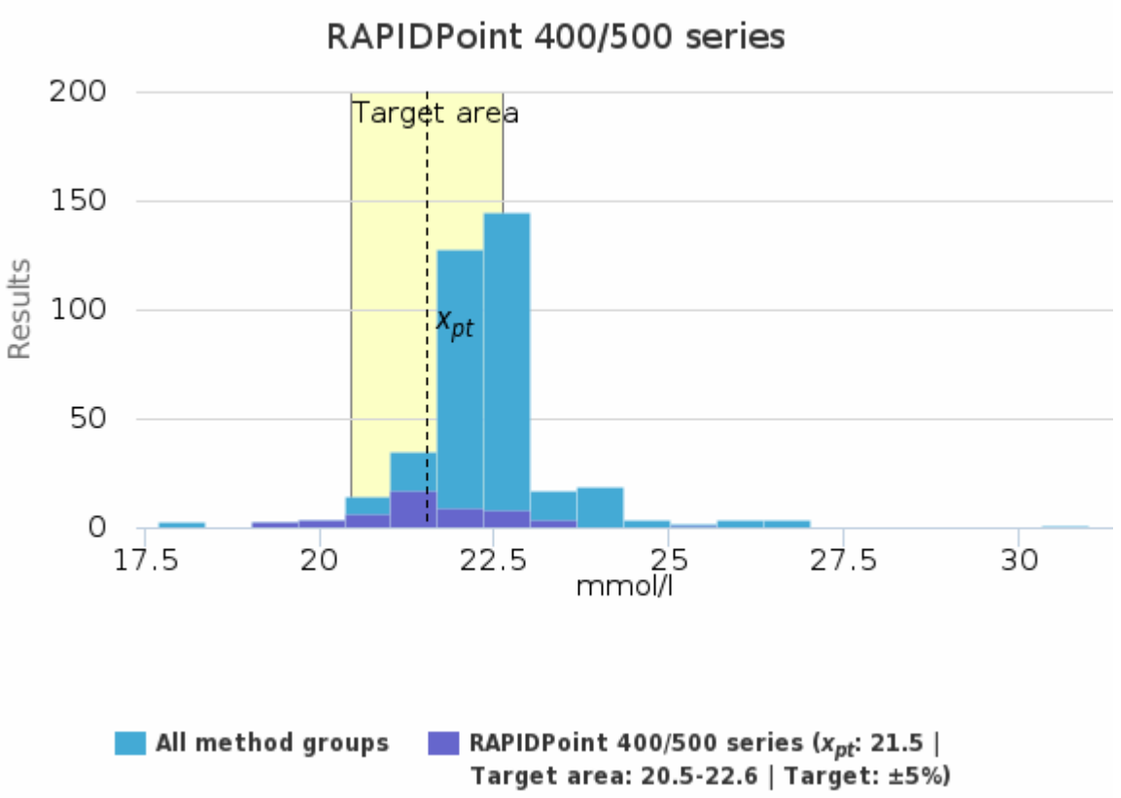




Acid-base status and electrolytes, February, 1-2023



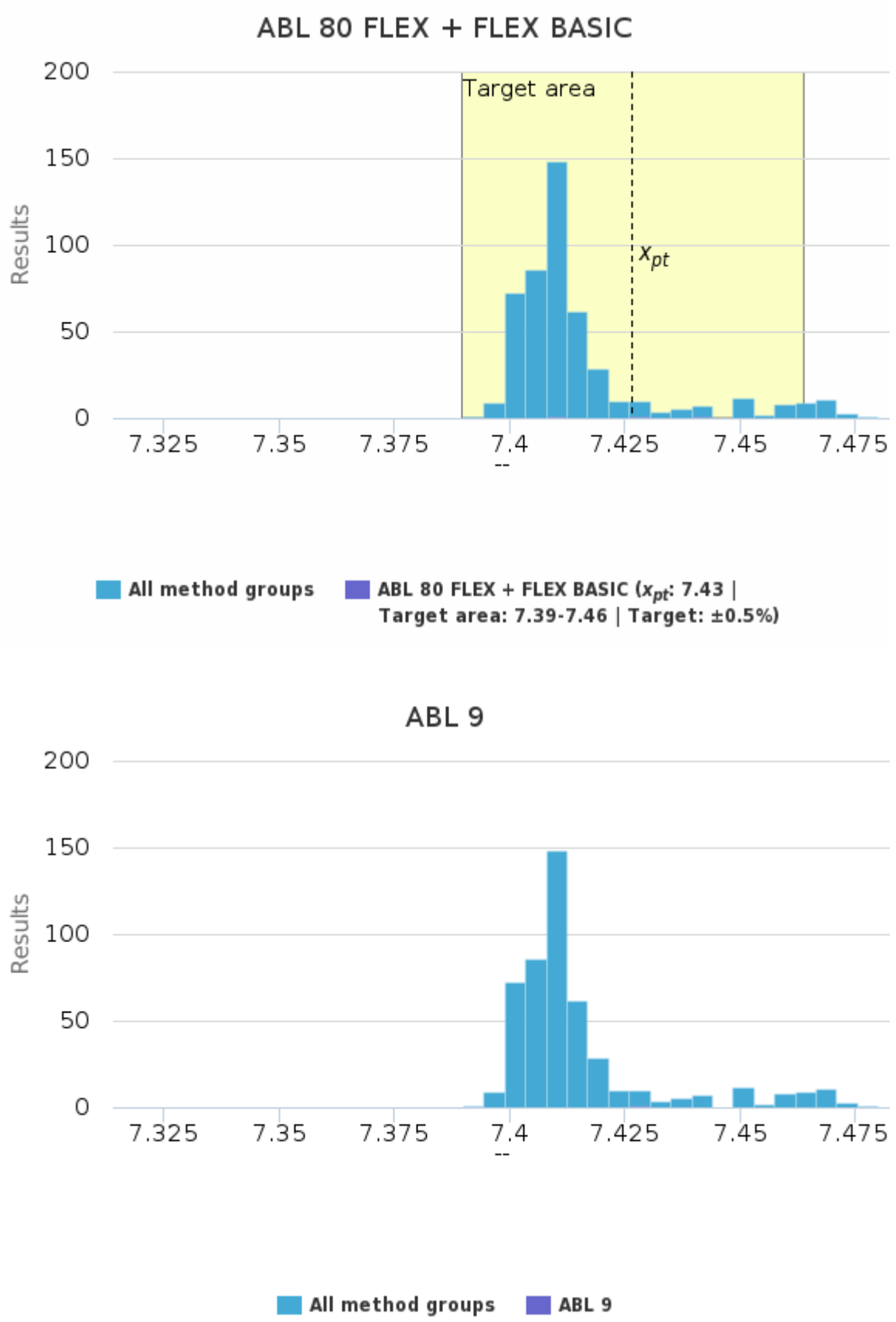


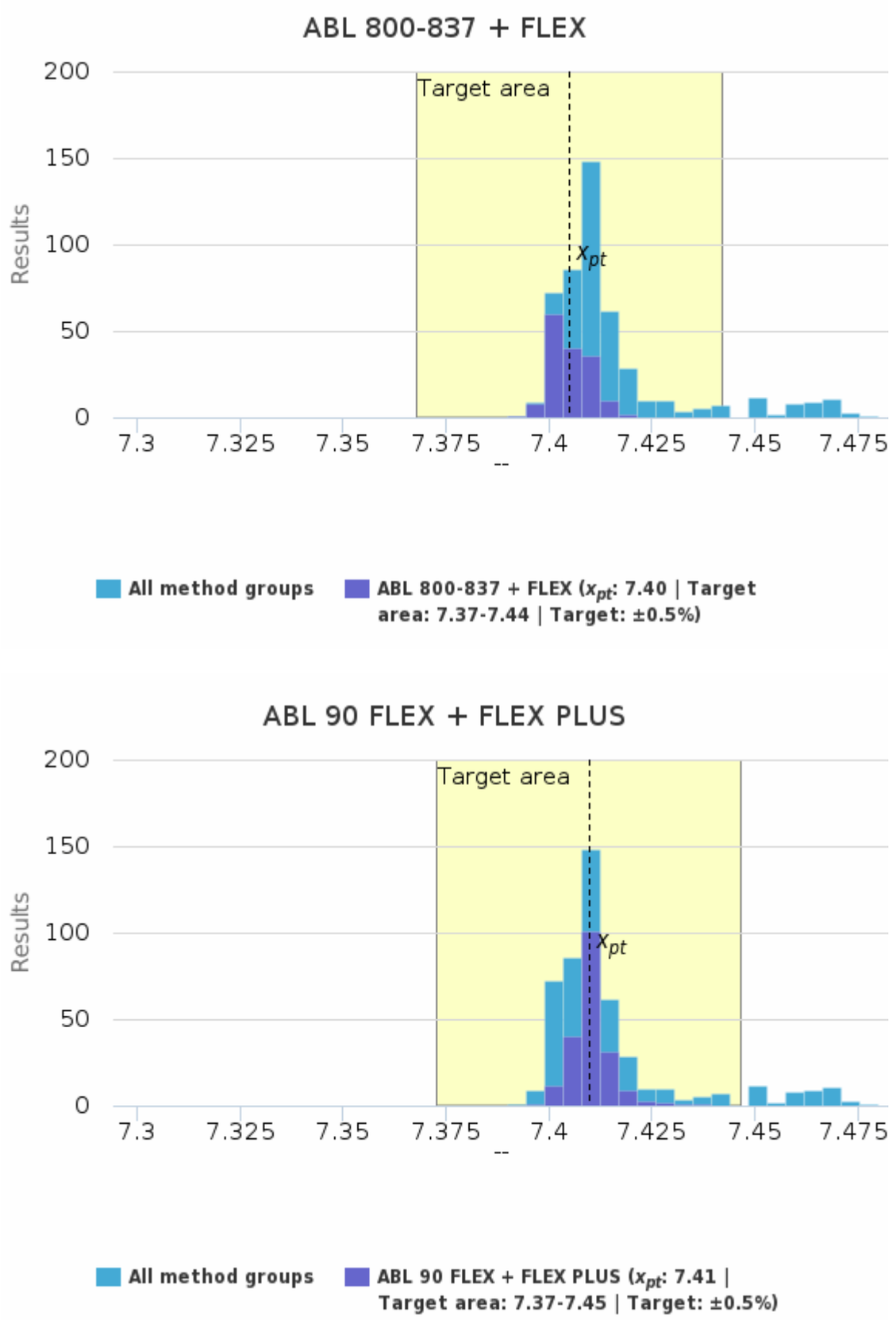


Sample S002 | pH, --

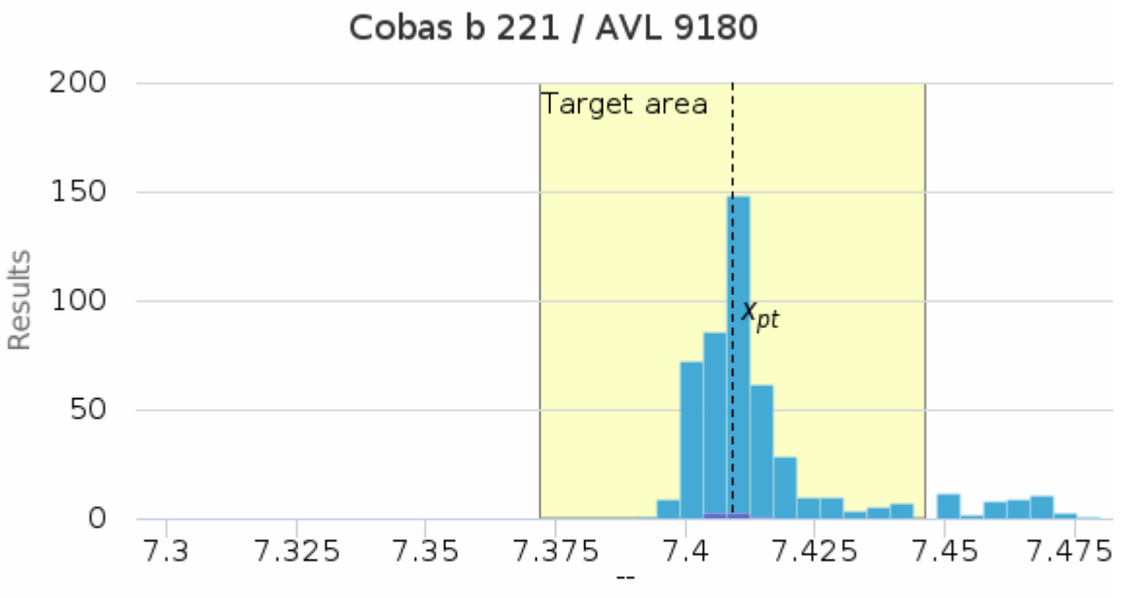
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	7.43	7.43	0.02	0.2	<0.01	7.41	7.44	-	3
ABL 800-837 + FLEX	7.40	7.41	<0.01	<0.1	<0.01	7.40	7.42	2	157
ABL 9	-	-	-	-	-	7.43	7.43	-	1
ABL 90 FLEX + FLEX PLUS	7.41	7.41	<0.01	<0.1	<0.01	7.40	7.42	4	201
Cobas b 221 / AVL 9180	7.41	7.41	<0.01	<0.1	<0.01	7.41	7.42	-	7
epoc Blood Analysis System	7.42	7.42	<0.01	0.1	<0.01	7.41	7.43	-	8
Gem Premier 3000-3500	7.45	7.45	<0.01	<0.1	<0.01	7.44	7.46	-	10
Gem Premier 4000	7.46	7.46	<0.01	0.1	<0.01	7.45	7.47	-	4
Gem Premier 5000	7.45	7.45	0.01	0.2	<0.01	7.44	7.48	-	10
i-STAT	7.46	7.47	<0.01	<0.1	<0.01	7.44	7.47	1	19
i-STAT Alinity	7.47	7.47	<0.01	<0.1	<0.01	7.47	7.47	-	8
Nova 8	-	-	-	-	-	7.45	7.45	-	1
RAPIDLab 1200 series (RL1240-RL1265)	7.43	7.44	0.01	0.2	<0.01	7.42	7.44	-	3
RAPIDLab 348/348EX	-	-	-	-	-	7.43	7.43	-	1
RAPIDPoint 400/500 series	7.42	7.42	<0.01	<0.1	<0.01	7.40	7.44	-	56
All	**7.41**	**7.41**	**0.01**	**0.2**	**<0.01**	**7.39**	**7.46**	**24**	**489**

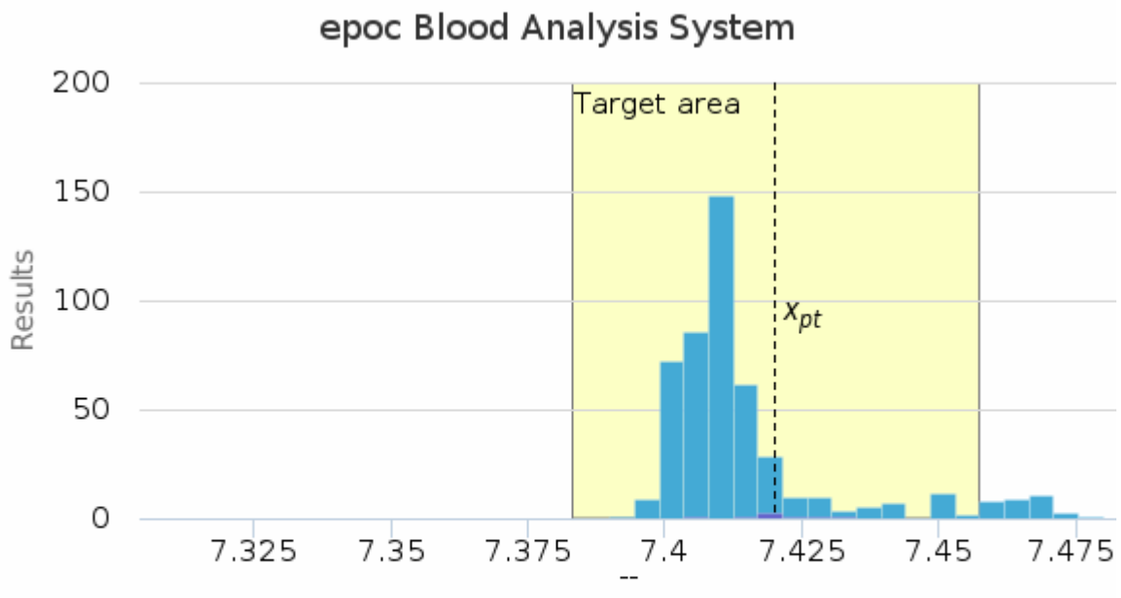
Sample S002 | pH, --| histogram summaries in LabScala

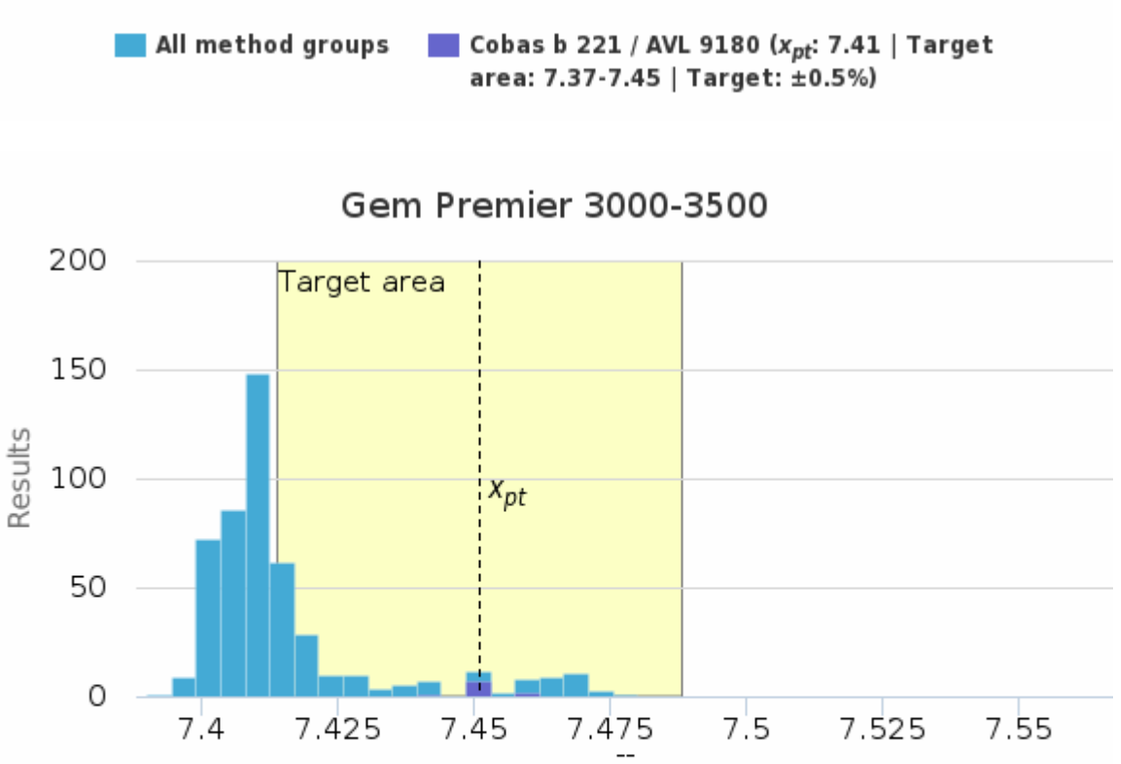


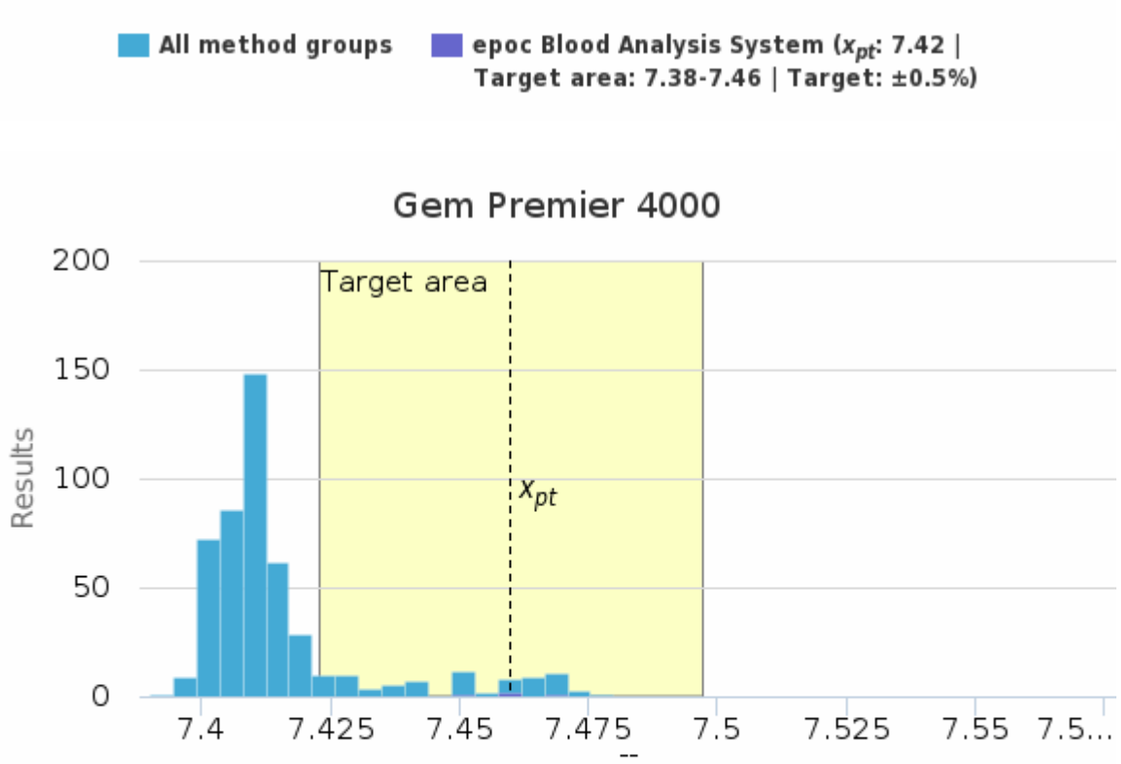


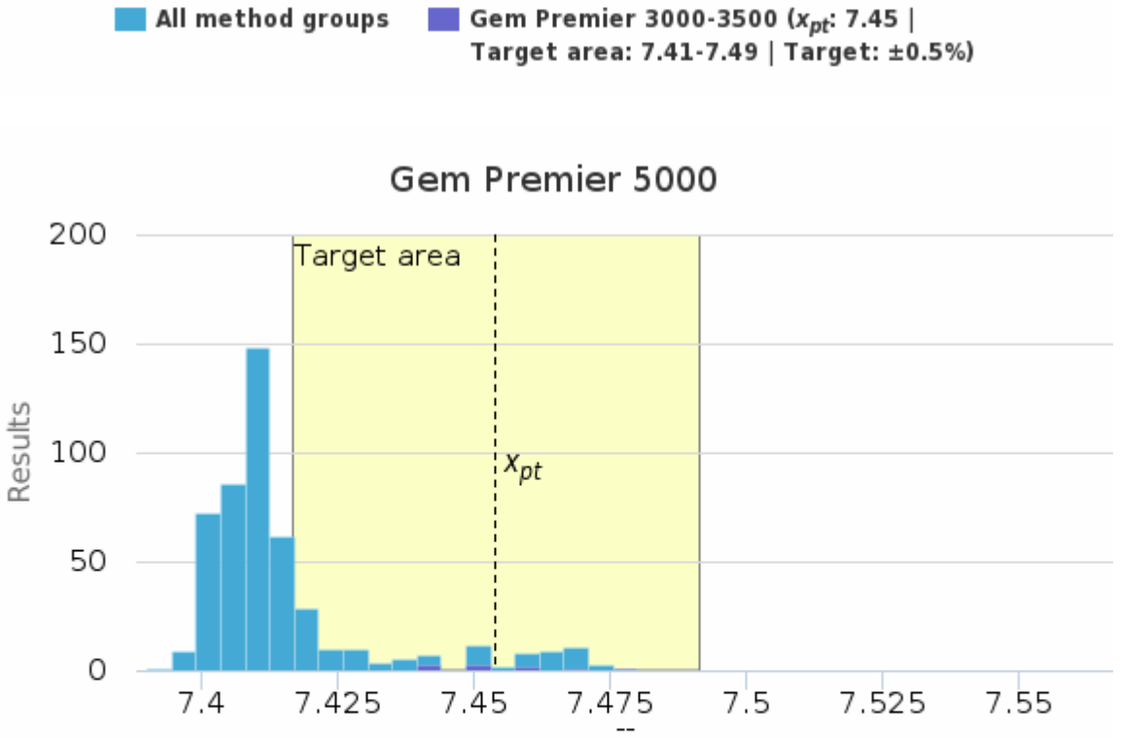
Acid-base status and electrolytes, February, 1-2023

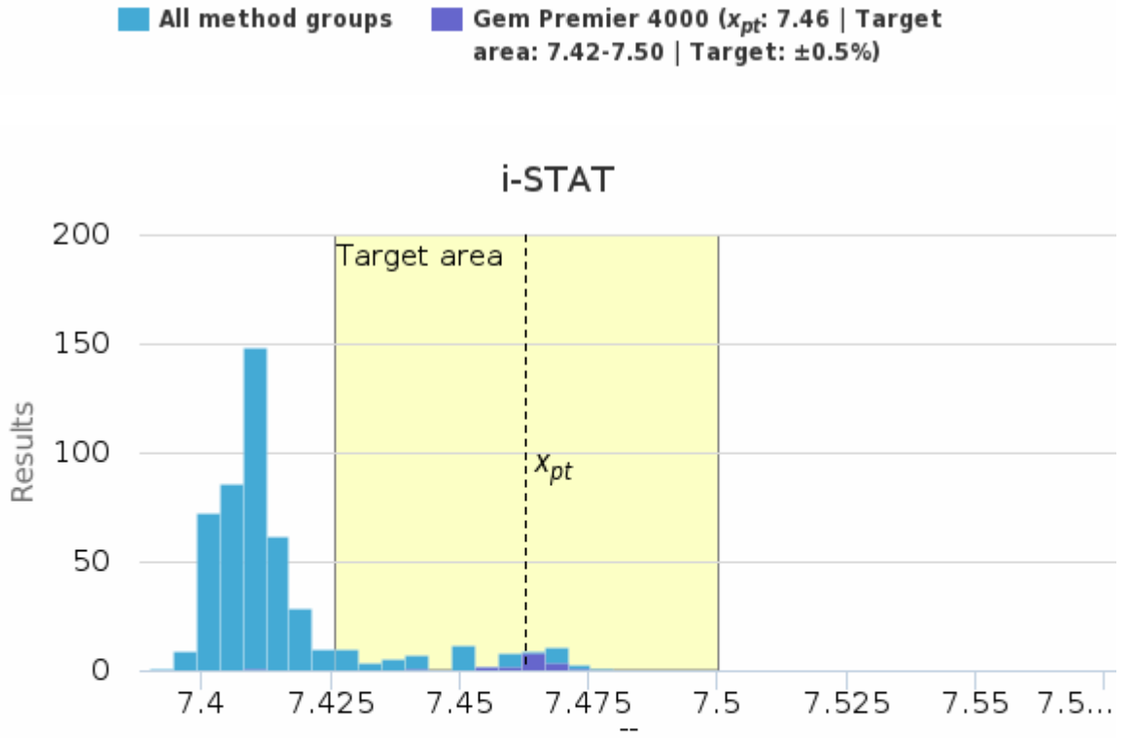




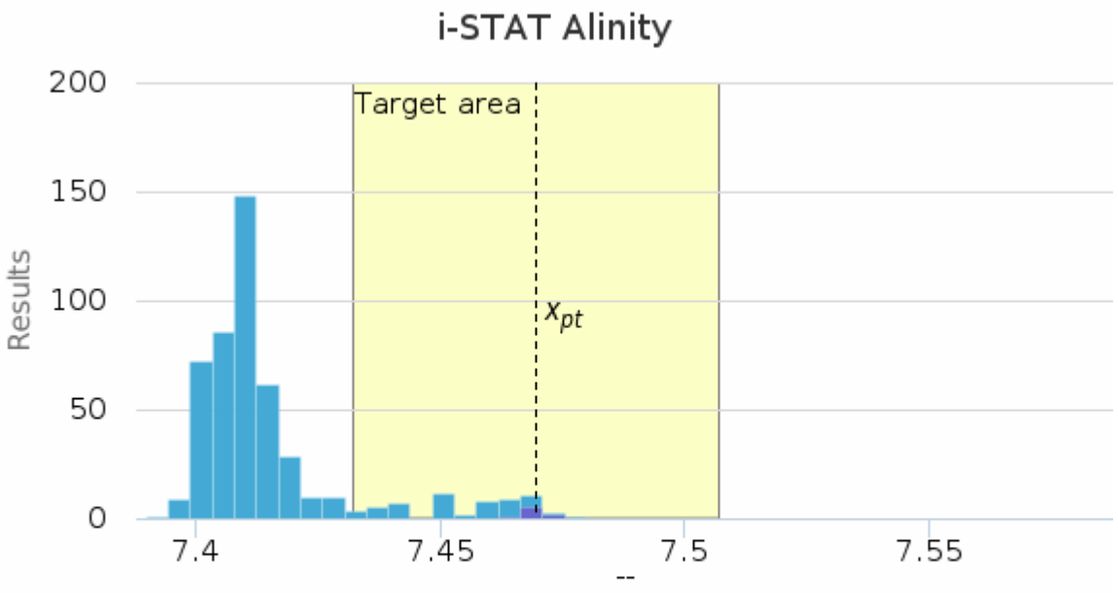


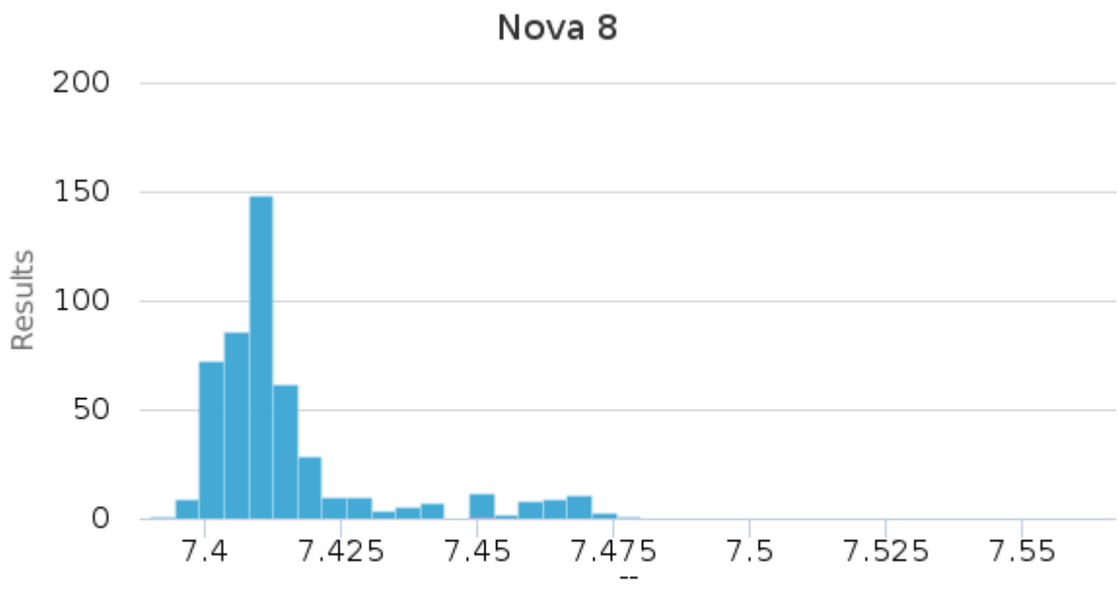


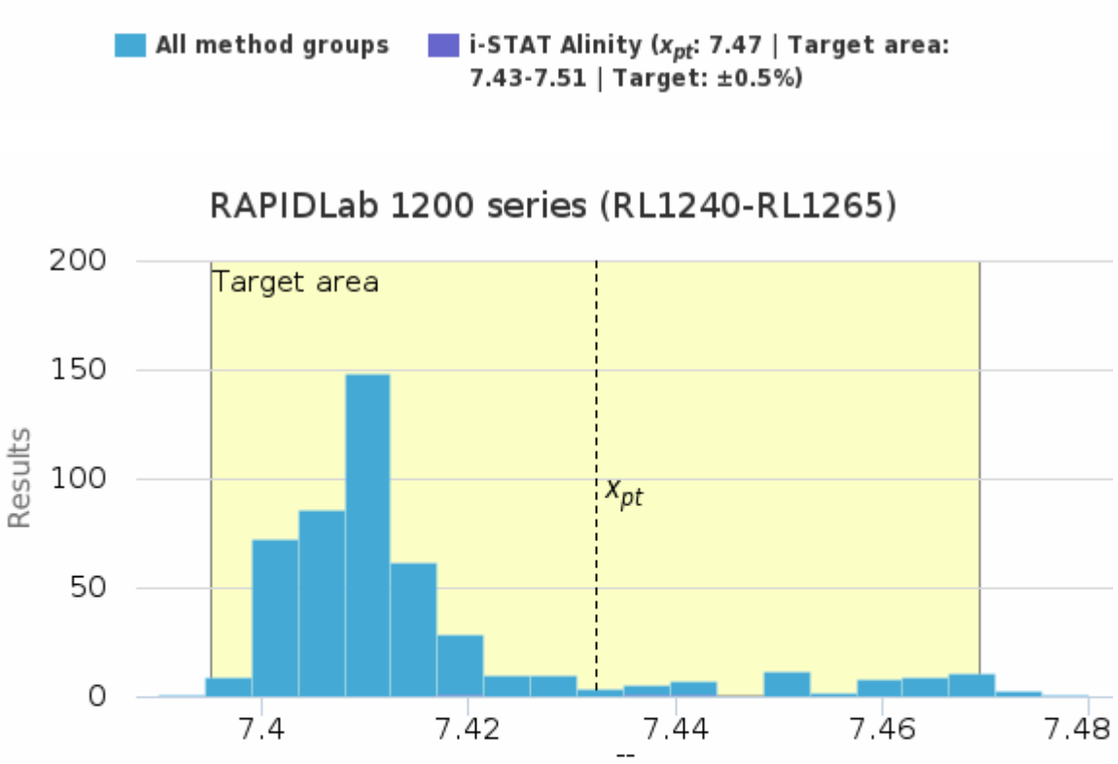


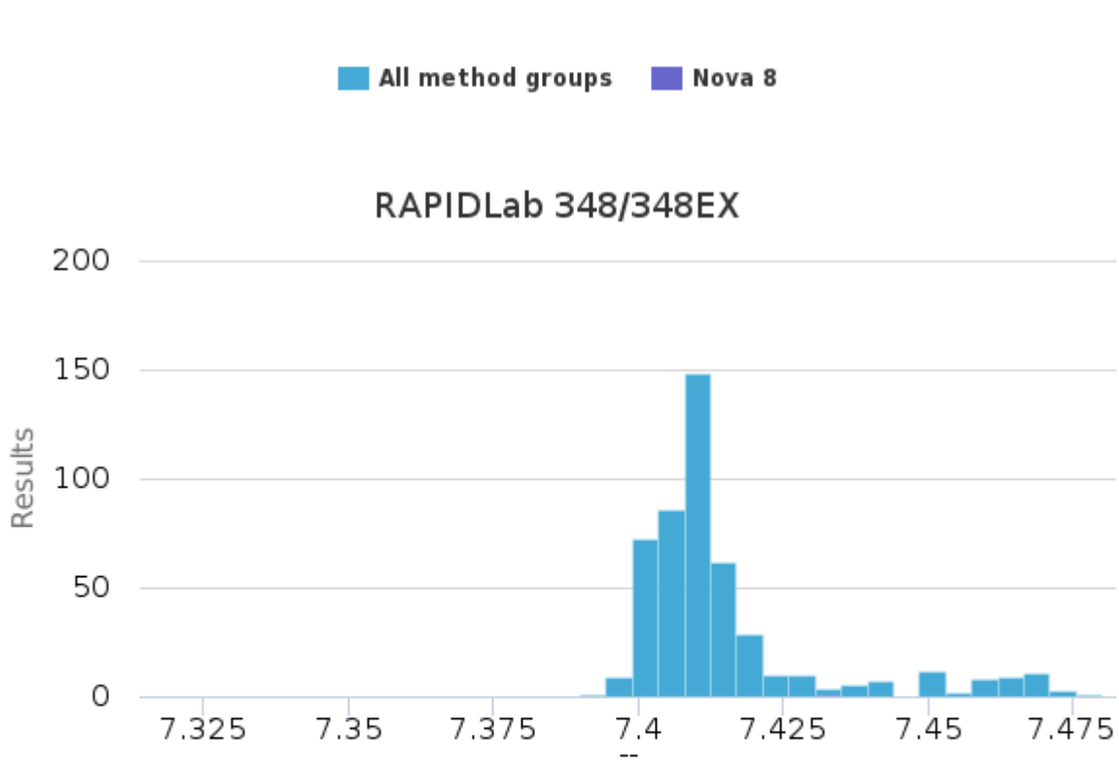


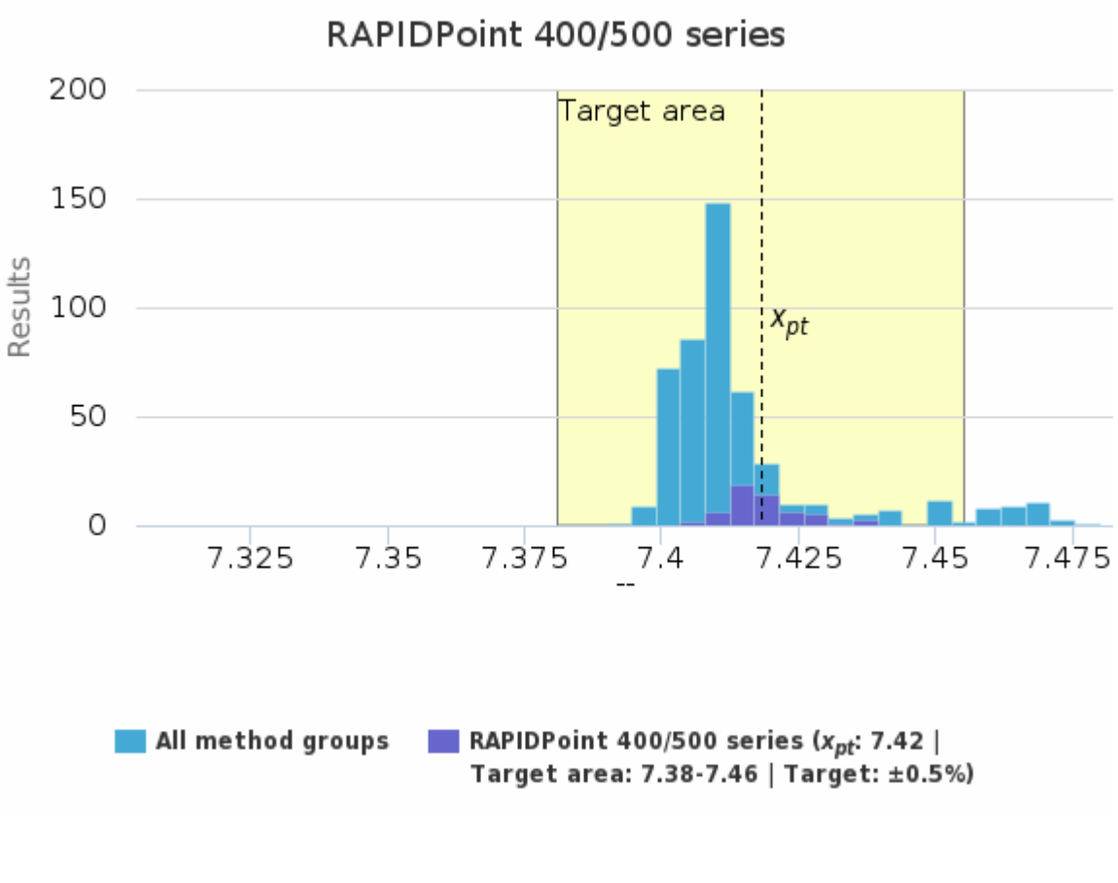
Acid-base status and electrolytes, February, 1-2023







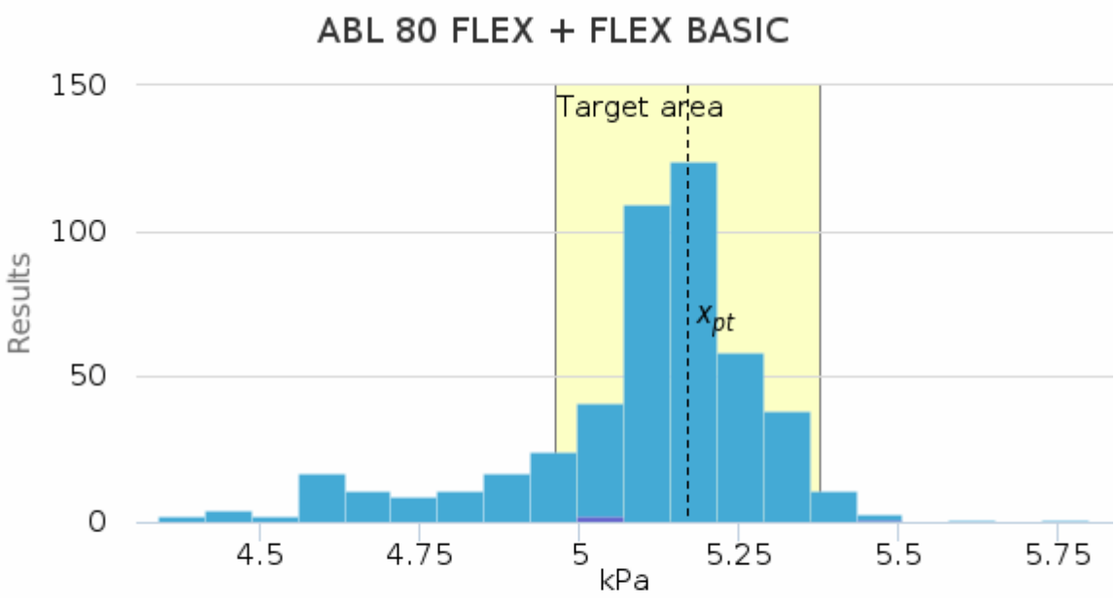


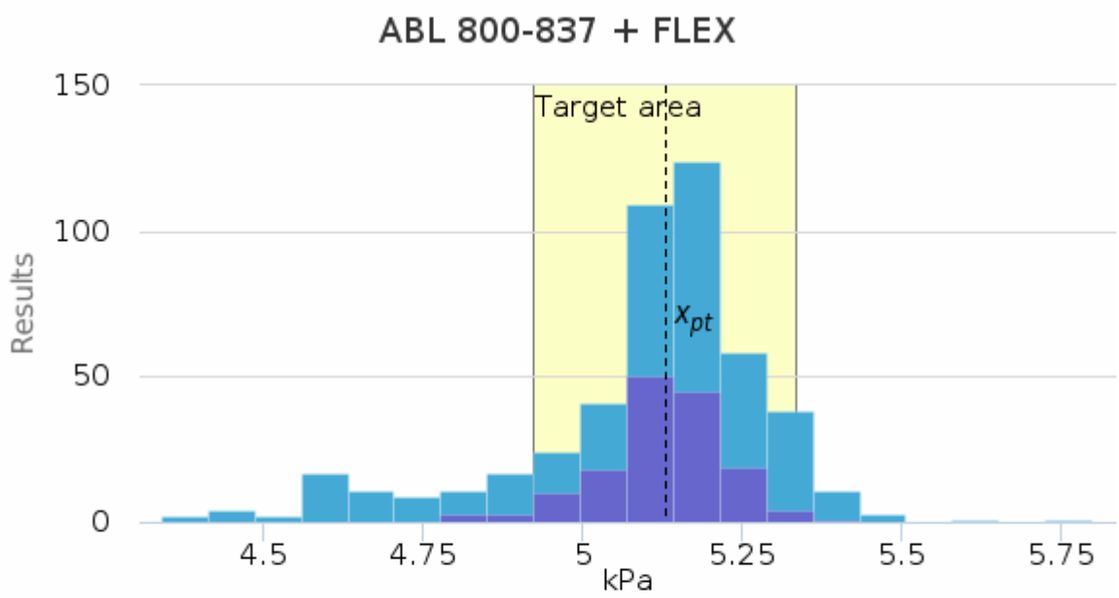


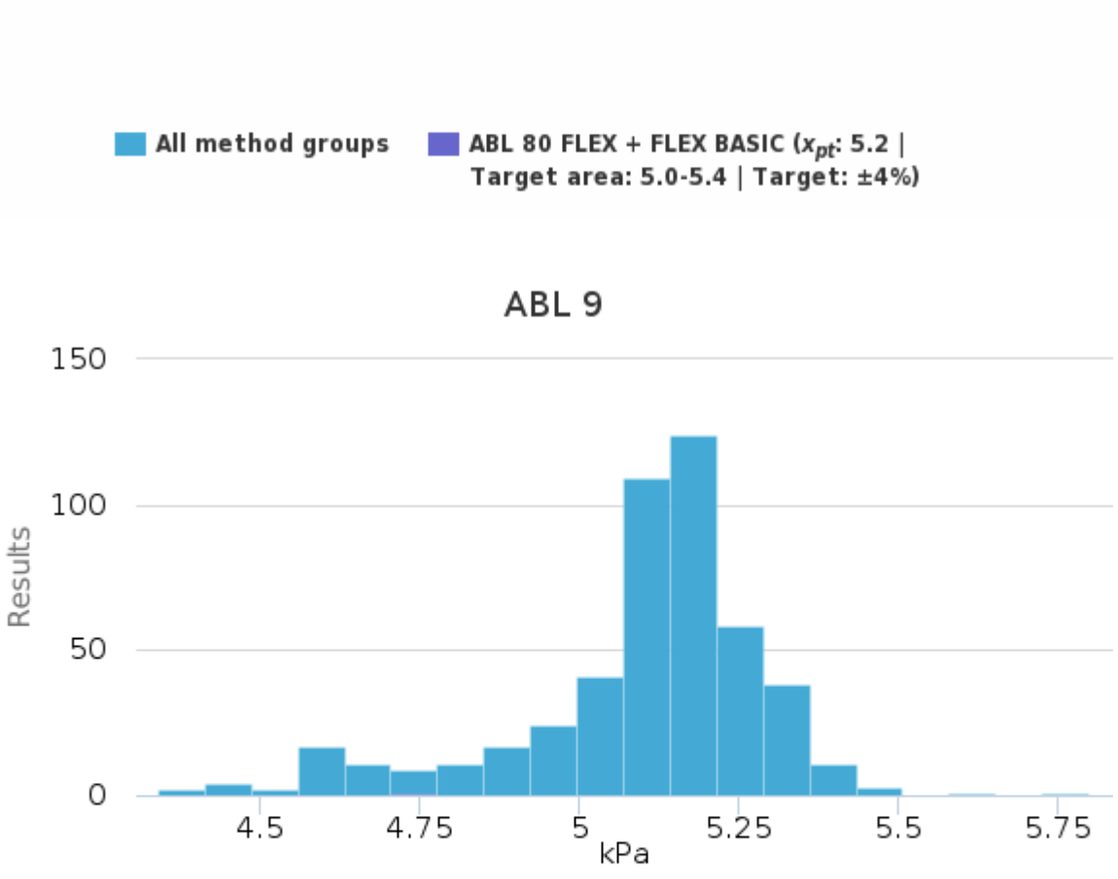
Sample S002 | CO2, kPa

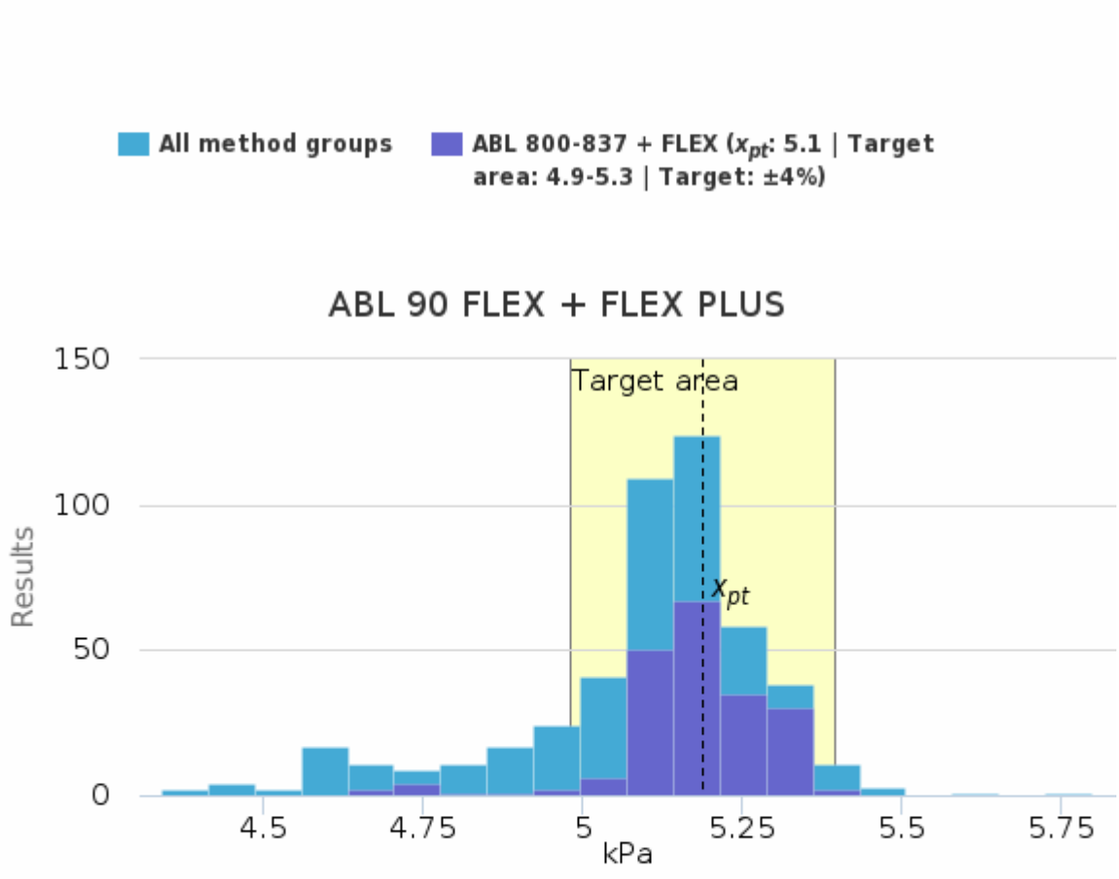
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	5.2	5.1	0.2	4.8	0.1	5.0	5.5	-	3
ABL 800-837 + FLEX	5.1	5.1	<0.1	1.8	<0.1	4.8	5.4	2	153
ABL 9	-	-	-	-	-	4.8	4.8	-	1
ABL 90 FLEX + FLEX PLUS	5.2	5.2	<0.1	1.6	<0.1	4.9	5.4	7	200
Cobas b 221 / AVL 9180	5.4	5.4	<0.1	1.4	<0.1	5.2	5.5	-	7
epoc Blood Analysis System	4.9	4.9	<0.1	2.0	<0.1	4.7	5.0	-	8
Gem Premier 3000-3500	5.2	5.2	0.2	3.4	<0.1	4.9	5.5	-	10
Gem Premier 4000	5.2	5.1	0.2	3.9	<0.1	4.9	5.4	-	4
Gem Premier 5000	5.3	5.4	0.2	4.3	<0.1	5.1	5.8	-	10
i-STAT	4.6	4.6	<0.1	1.7	<0.1	4.4	4.7	1	19
i-STAT Alinity	4.6	4.6	<0.1	1.0	<0.1	4.5	4.7	-	8
RAPIDLab 1200 series (RL1240-RL1265)	5.1	5.0	0.1	2.1	<0.1	5.0	5.2	-	3
RAPIDLab 348/348EX	-	-	-	-	-	5.1	5.1	-	1
RAPIDPoint 400/500 series	4.9	5.0	0.2	3.8	<0.1	4.4	5.3	1	56
All	**5.1**	**5.1**	**0.2**	**3.5**	**<0.1**	**4.6**	**5.6**	**8**	**483**

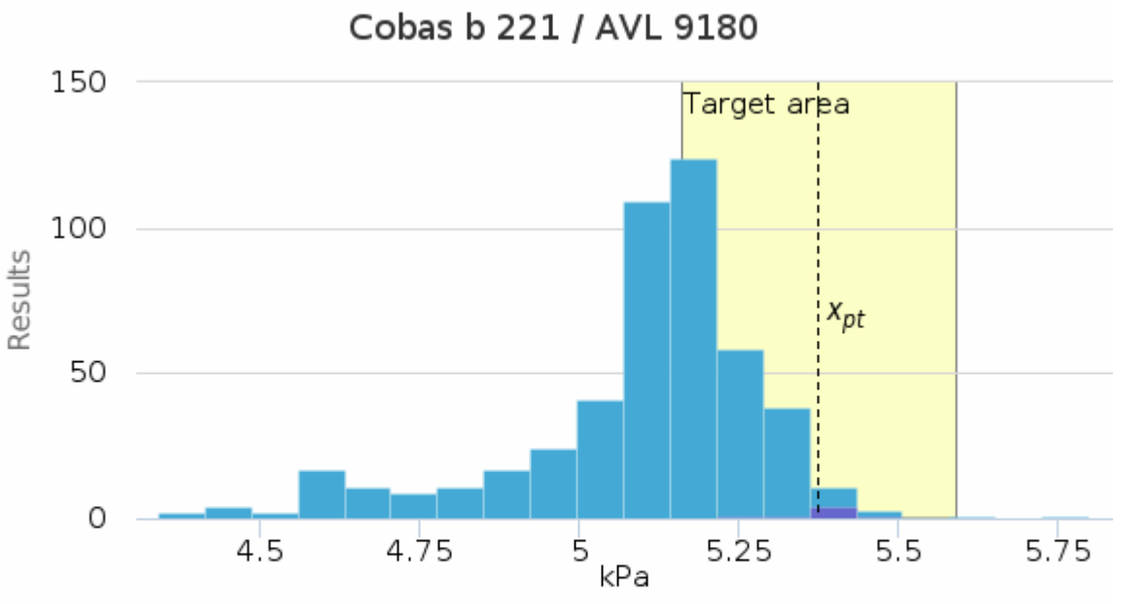
Sample S002 | CO2, kPa| histogram summaries in LabScala

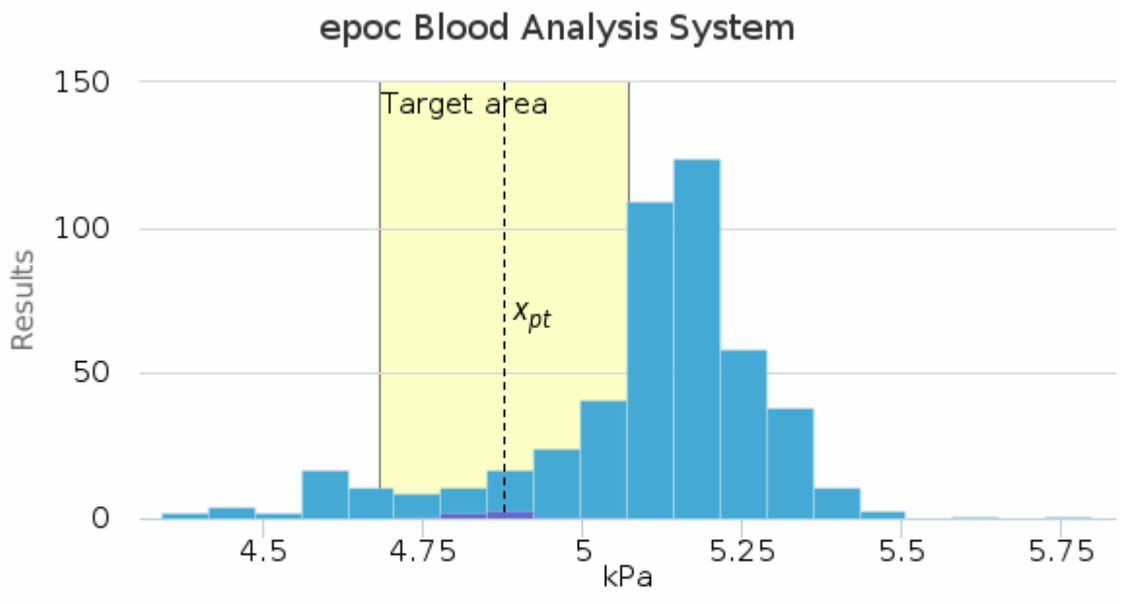






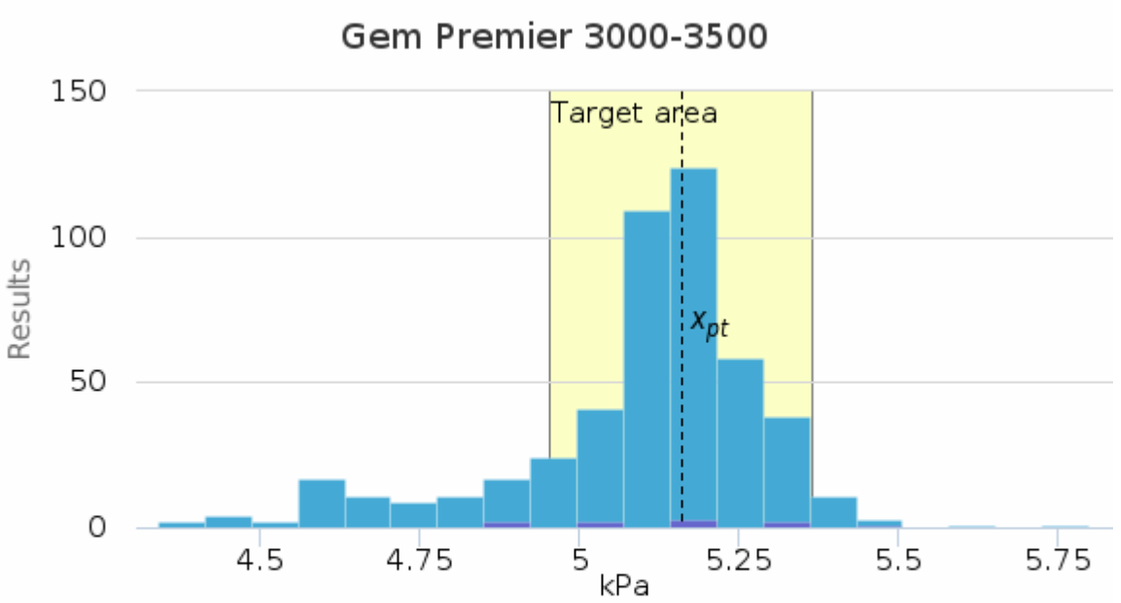


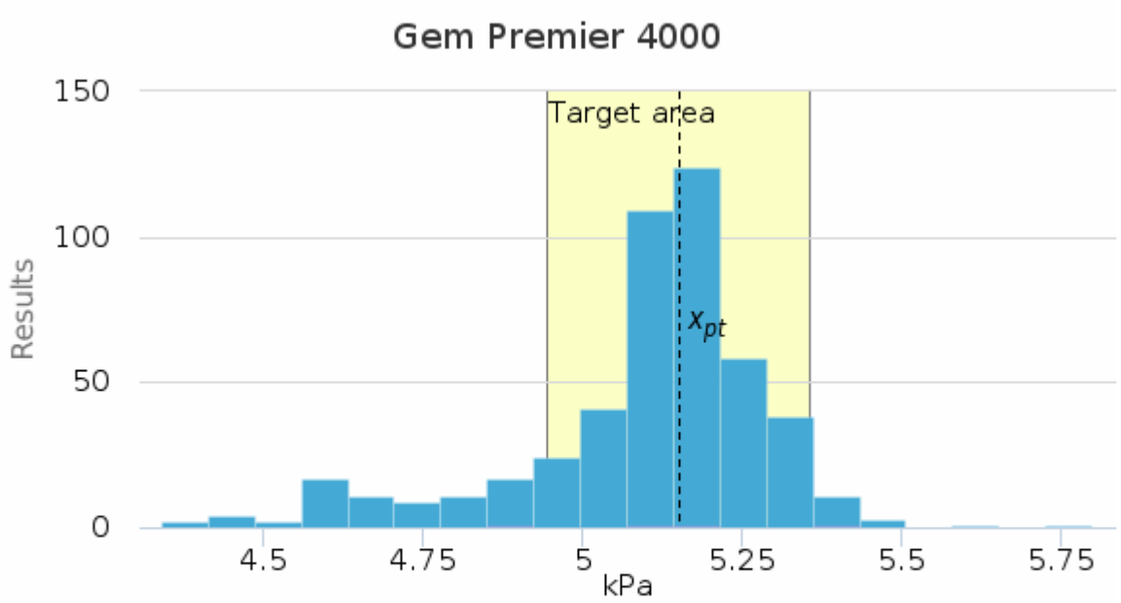




All method groups | Cobas b 221 / AVL 9180 (x_{pt}: 5.4 | Target area: 5.2-5.6 | Target: ±4%)

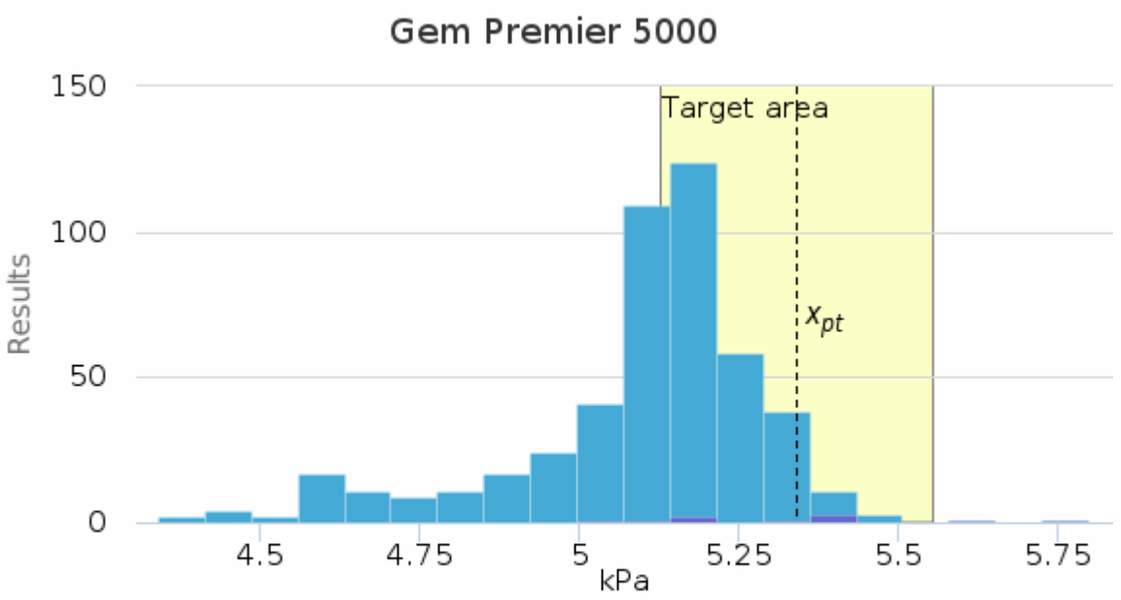
All method groups | epoc Blood Analysis System (x_{pt}: 4.9 | Target area: 4.7-5.1 | Target: ±4%)

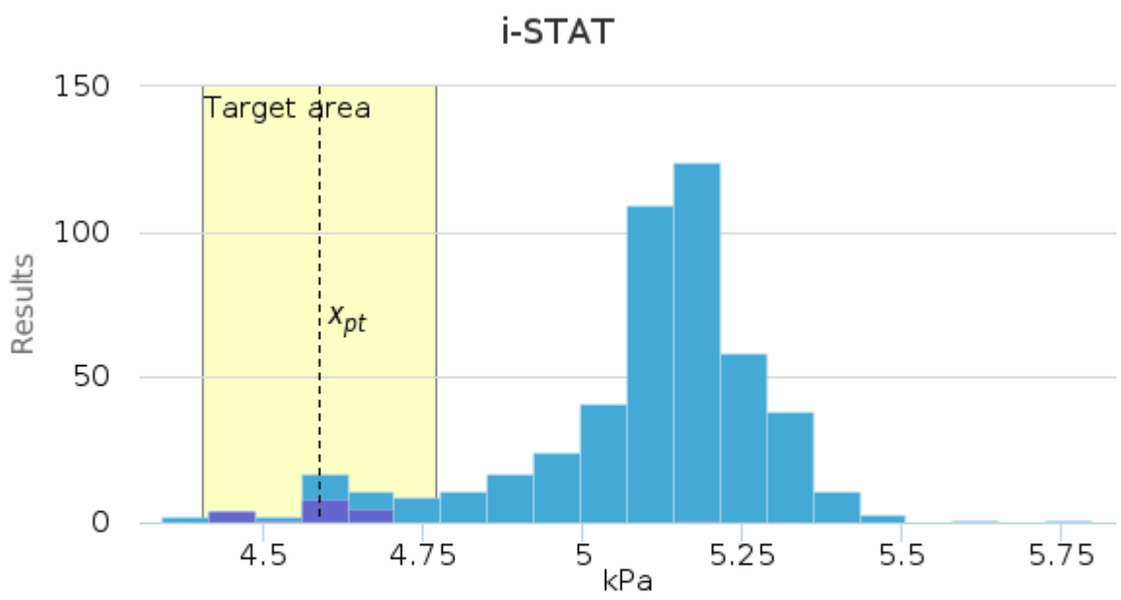




All method groups | Gem Premier 3000-3500 (x_{pt}: 5.2 | Target area: 5.0-5.4 | Target: ±4%)

All method groups | Gem Premier 4000 (x_{pt}: 5.2 | Target area: 4.9-5.4 | Target: ±4%)

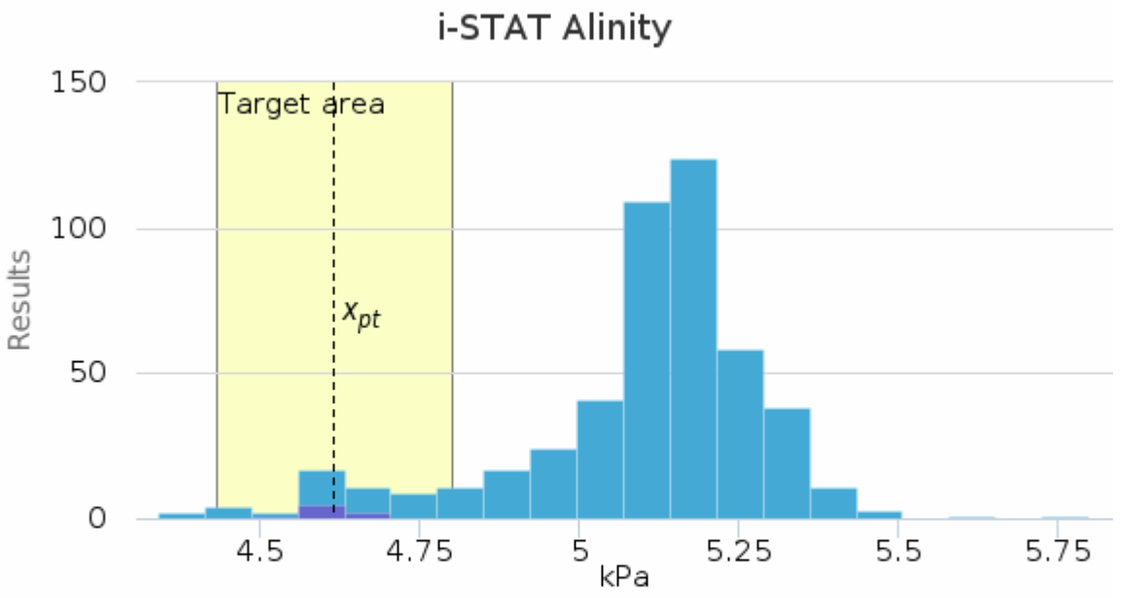


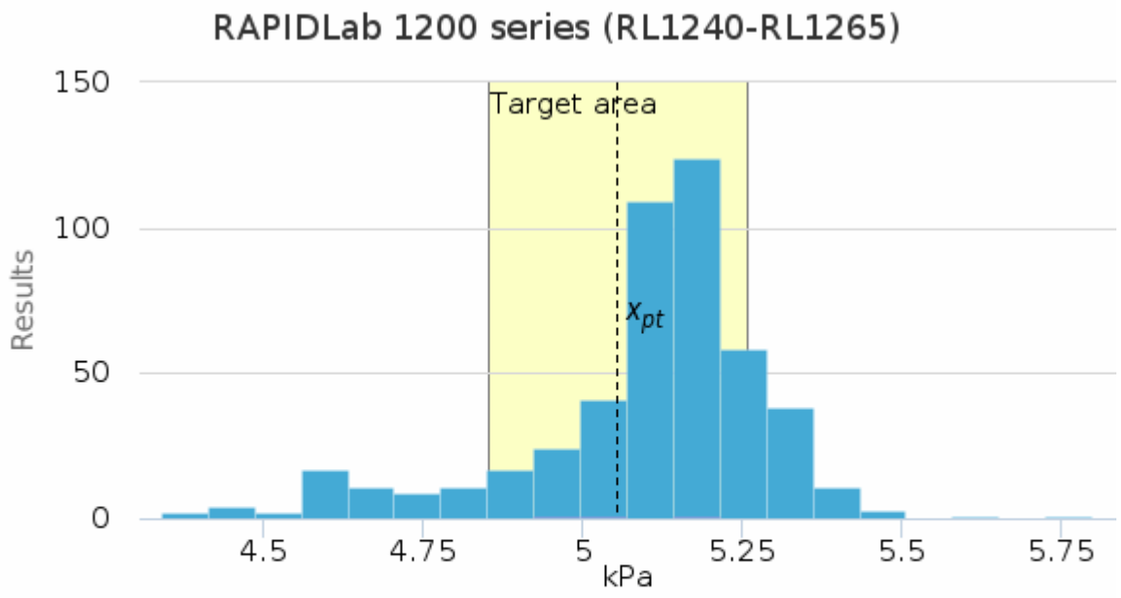


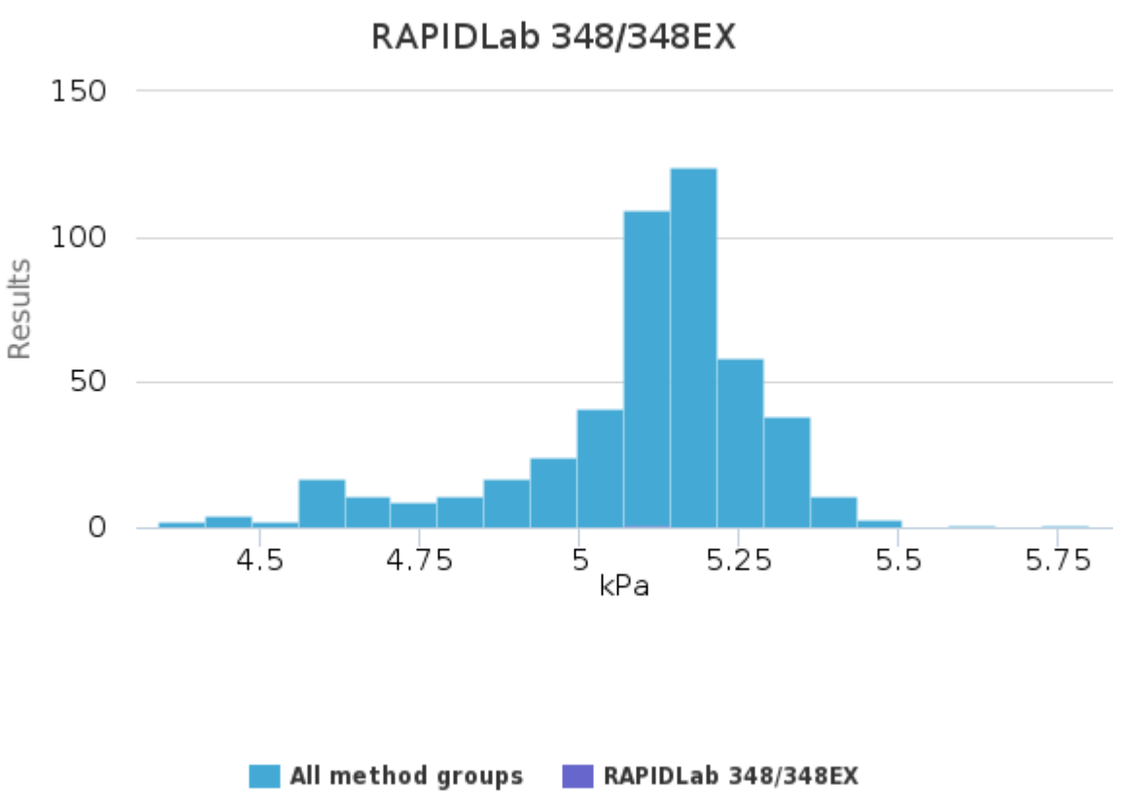
All method groups | Gem Premier 5000 (x_{pt}: 5.3 | Target area: 5.1-5.6 | Target: ±4%)

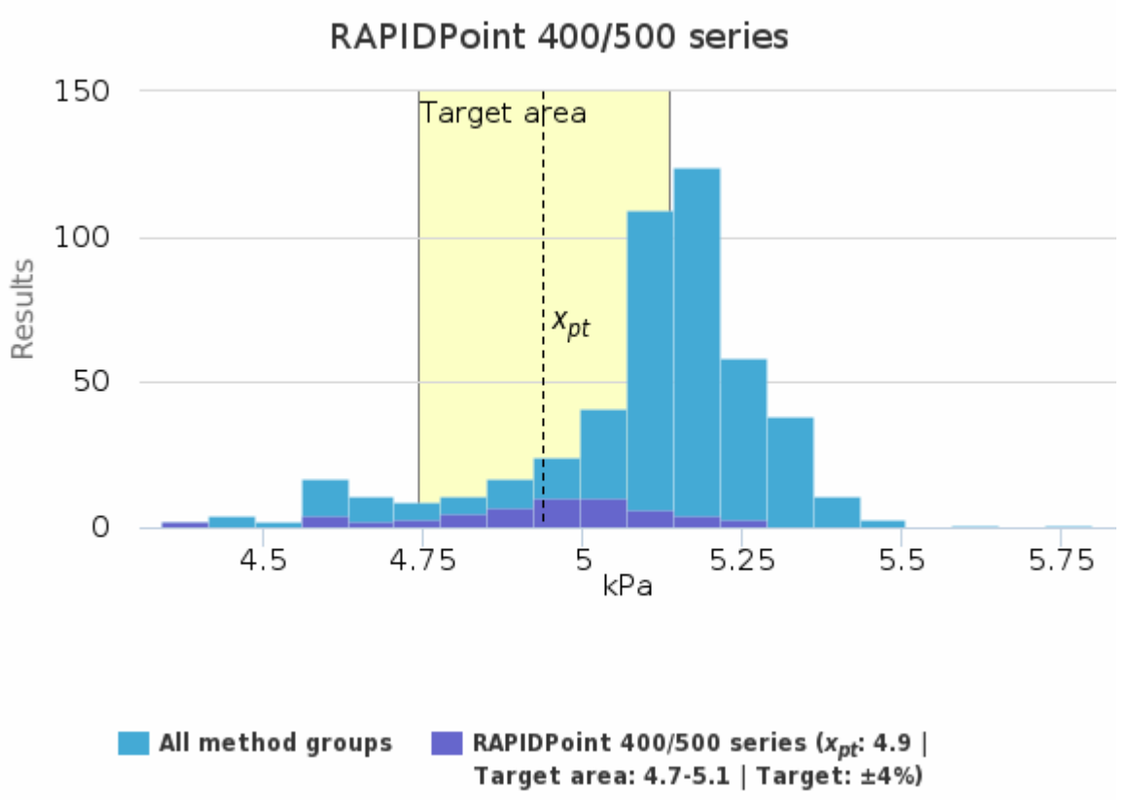
All method groups | i-STAT (x_{pt}: 4.6 | Target area: 4.4-4.8 | Target: ±4%)

Acid-base status and electrolytes, February, 1-2023





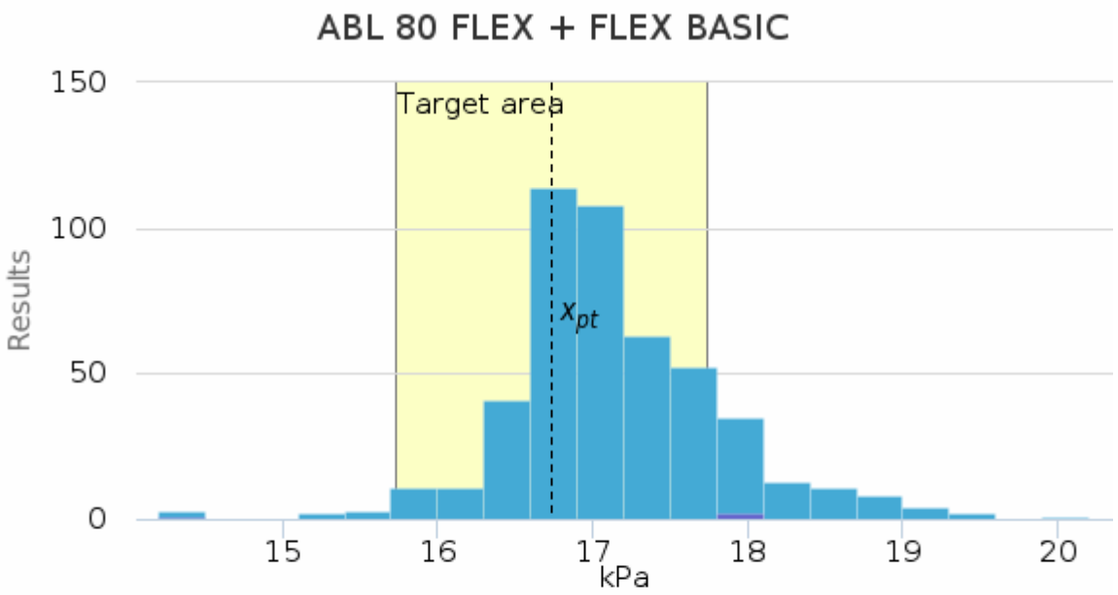


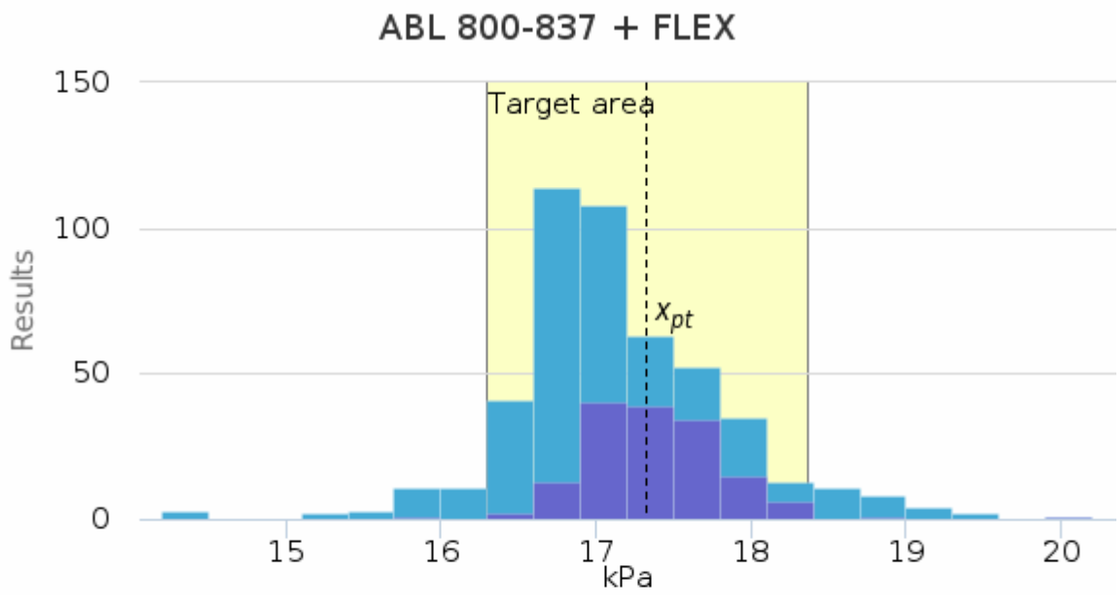


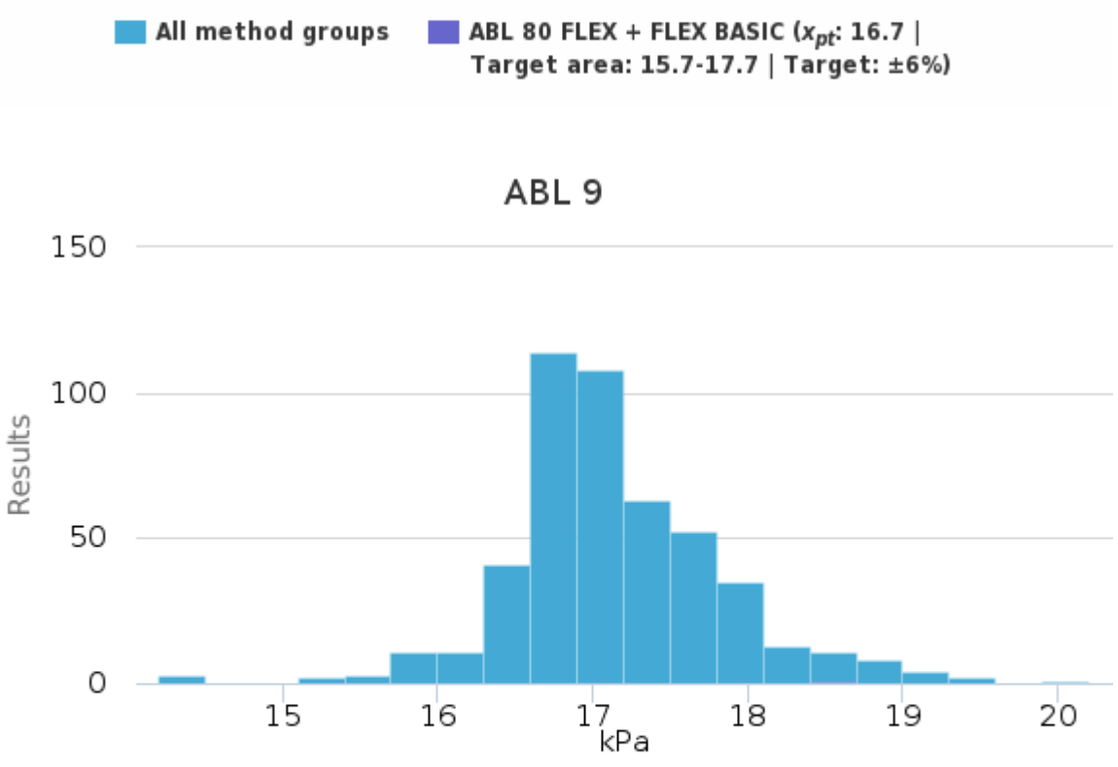
Sample S002 | O2, kPa

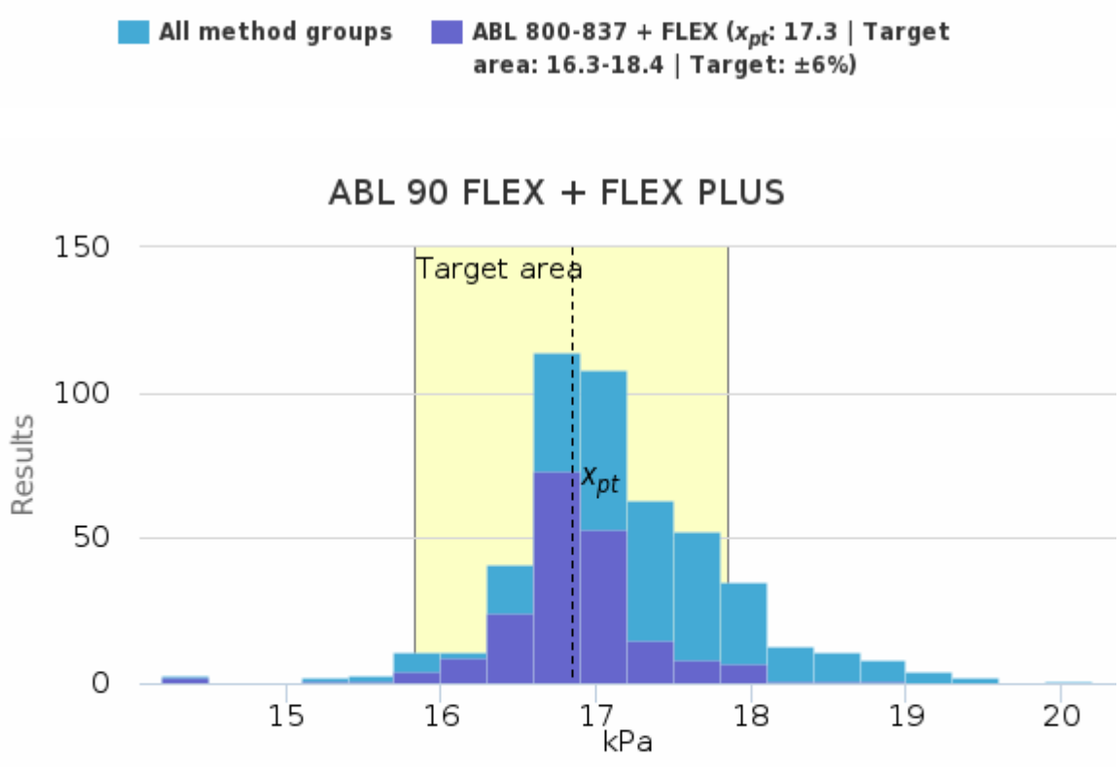
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	16.7	17.8	1.9	11.6	1.1	14.5	17.9	-	3
ABL 800-837 + FLEX	17.3	17.3	0.4	2.3	<0.1	16.5	18.7	2	152
ABL 9	-	-	-	-	-	18.6	18.6	-	1
ABL 90 FLEX + FLEX PLUS	16.8	16.8	0.4	2.5	<0.1	15.4	18.1	5	200
Cobas b 221 / AVL 9180	18.2	18.0	0.4	2.2	0.2	17.7	18.8	-	7
epoc Blood Analysis System	16.8	16.7	1.1	6.7	0.4	15.4	18.8	-	8
Gem Premier 3000-3500	17.6	17.7	0.4	2.5	0.1	16.9	18.1	-	10
Gem Premier 4000	16.7	16.6	0.6	3.9	0.3	16.0	17.5	-	4
Gem Premier 5000	16.6	16.4	0.8	4.8	0.3	15.6	18.5	-	10
i-STAT	18.1	18.4	0.8	4.3	0.2	16.8	19.3	-	19
i-STAT Alinity	18.3	18.5	0.8	4.2	0.3	17.0	19.1	-	8
RAPIDLab 1200 series (RL1240-RL1265)	16.7	16.8	0.7	4.0	0.4	16.0	17.3	-	3
RAPIDLab 348/348EX	-	-	-	-	-	17.1	17.1	-	1
RAPIDPoint 400/500 series	16.9	16.9	0.6	3.4	<0.1	15.9	18.8	1	56
All	**17.1**	**17.0**	**0.6**	**3.7**	**<0.1**	**15.1**	**19.1**	**6**	**482**

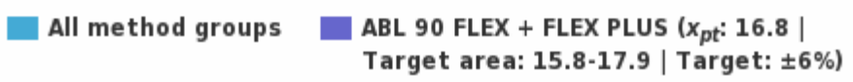
Sample S002 | O2, kPa| histogram summaries in LabScala



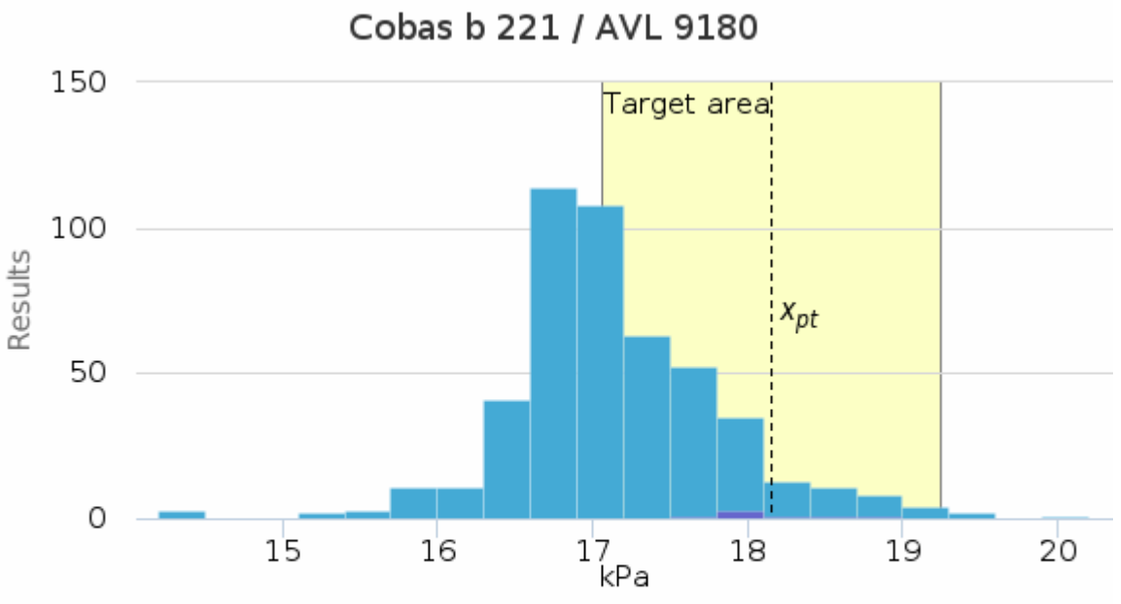


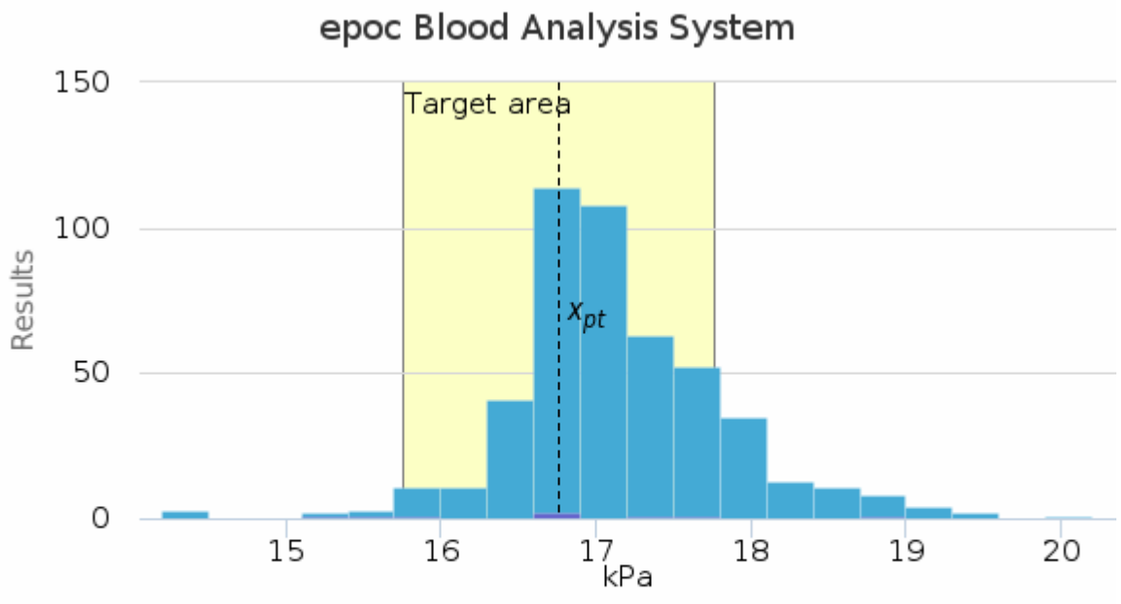






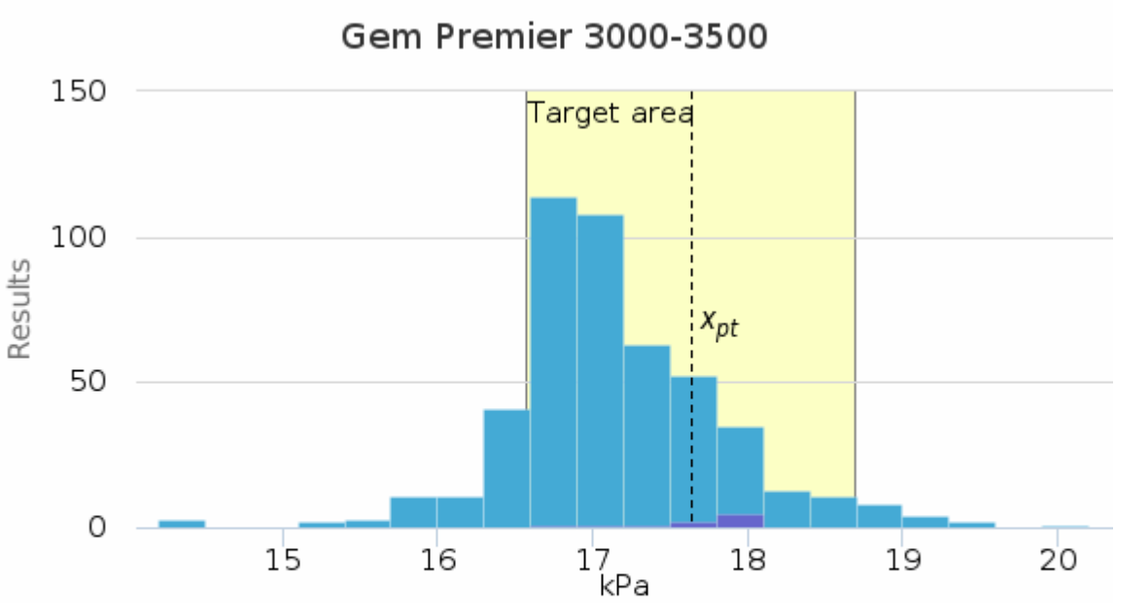
Acid-base status and electrolytes, February, 1-2023

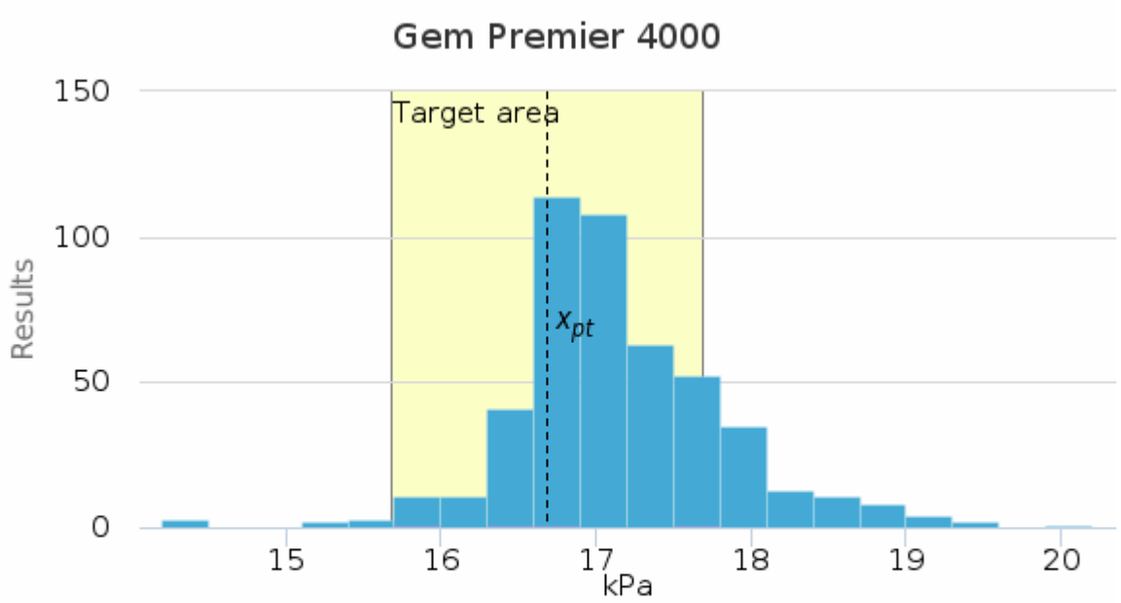




All method groups
Cobas b 221 / AVL 9180 (x_{pt}: 18.2 | Target area: 17.1-19.2 | Target: ±6%)

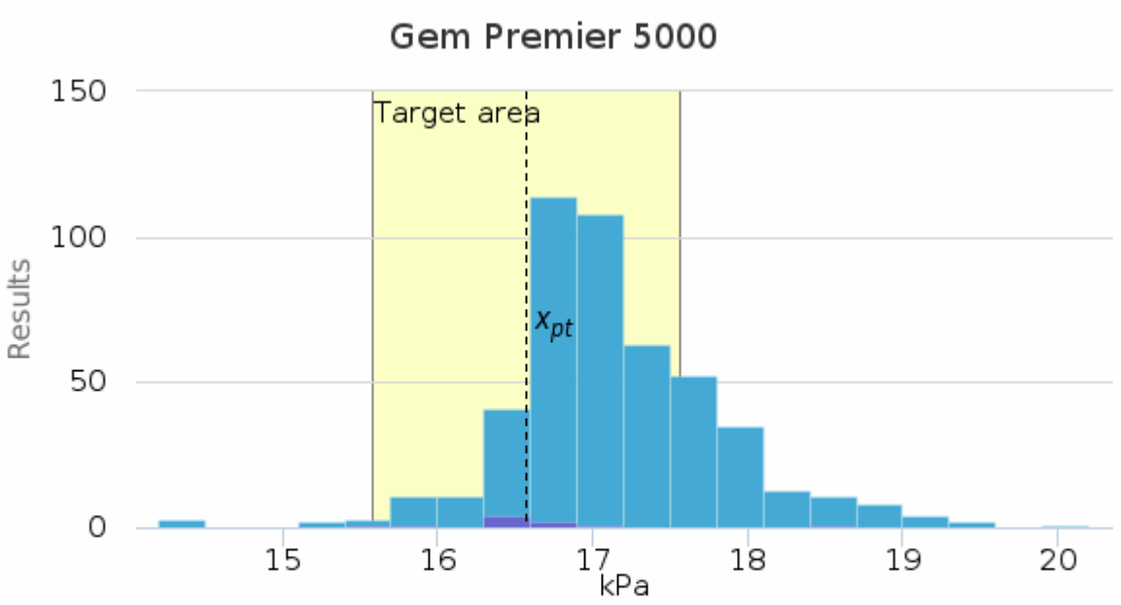
All method groups
epoc Blood Analysis System (x_{pt}: 16.8 | Target area: 15.8-17.8 | Target: ±6%)

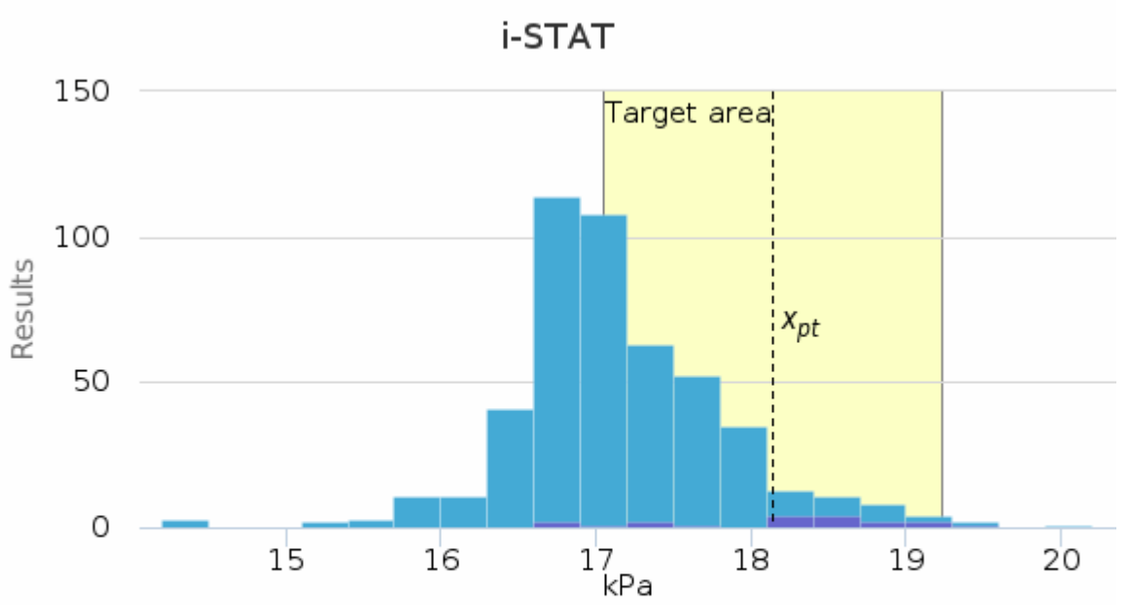




All method groups
Gem Premier 3000-3500 (x_{pt}: 17.6 | Target area: 16.6-18.7 | Target: ±6%)

All method groups
Gem Premier 4000 (x_{pt}: 16.7 | Target area: 15.7-17.7 | Target: ±6%)

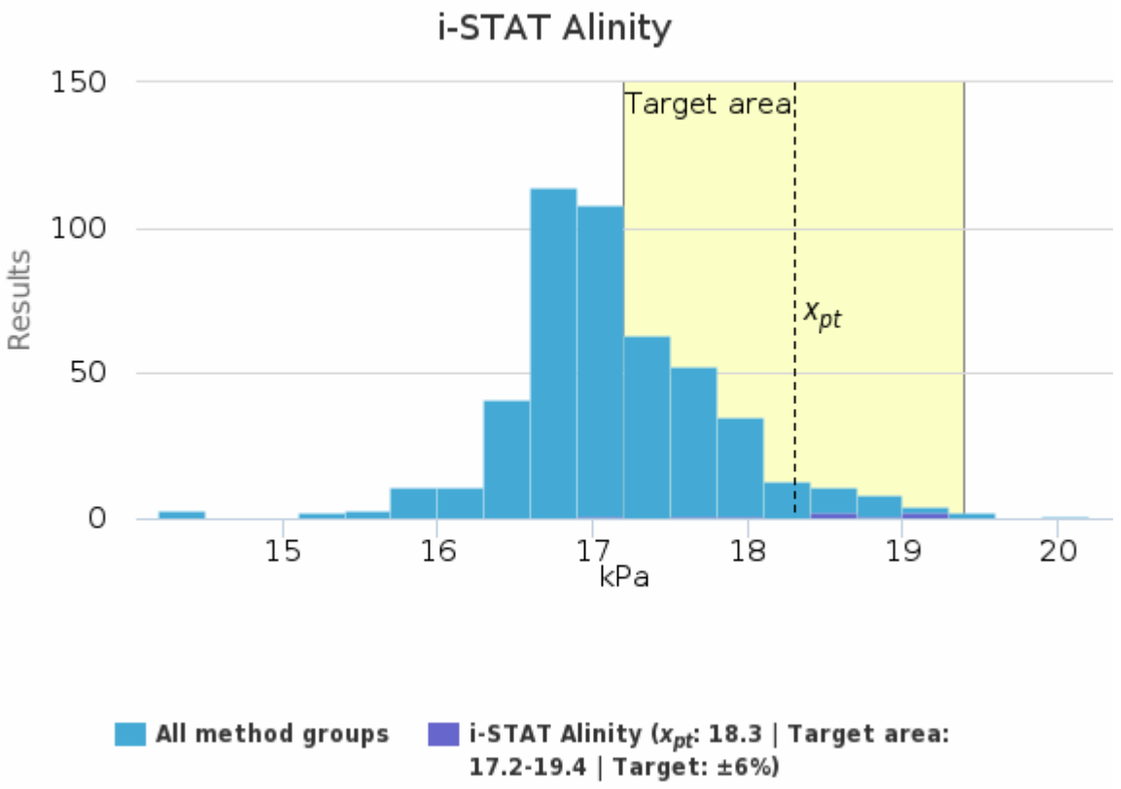


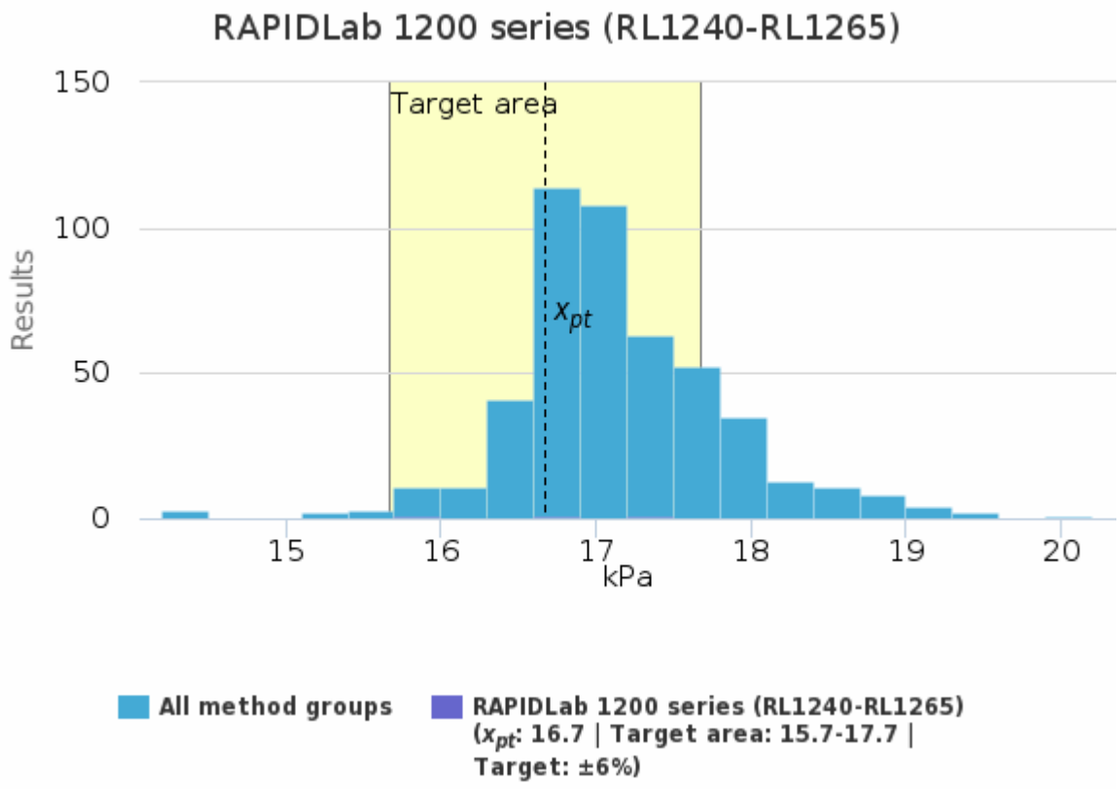


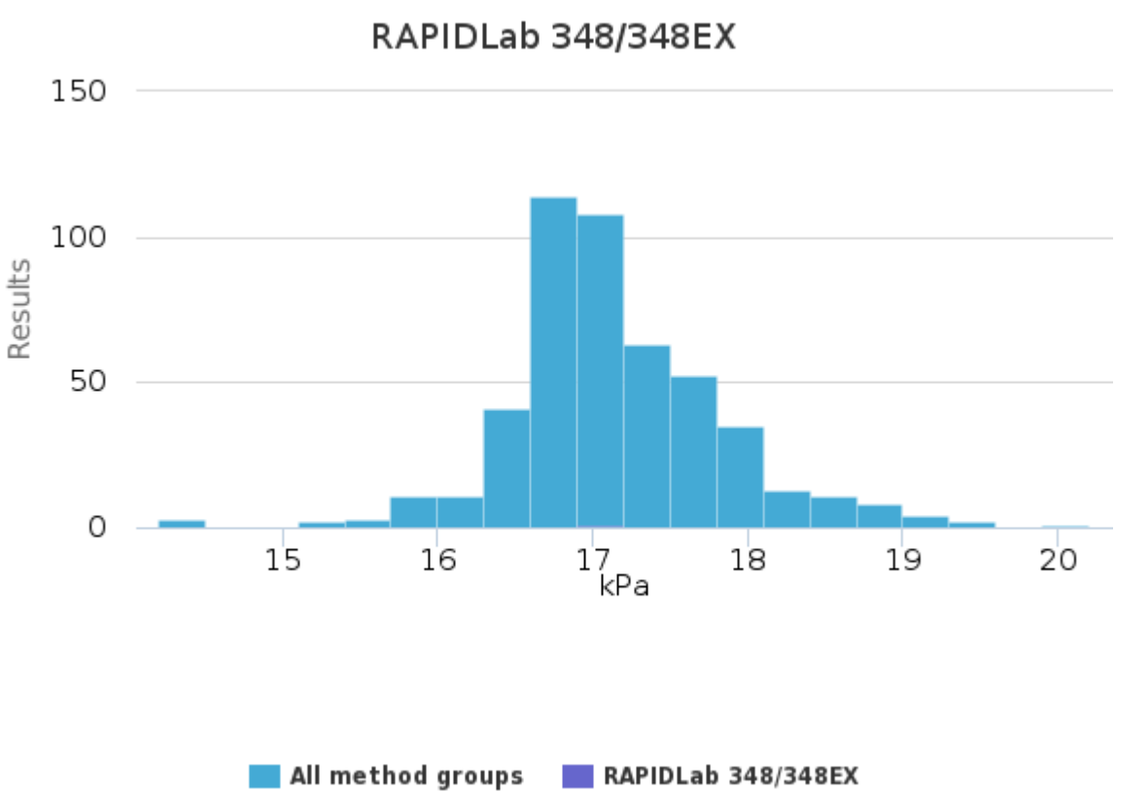
All method groups
Gem Premier 5000 (x_{pt}: 16.6 | Target area: 15.6-17.6 | Target: ±6%)

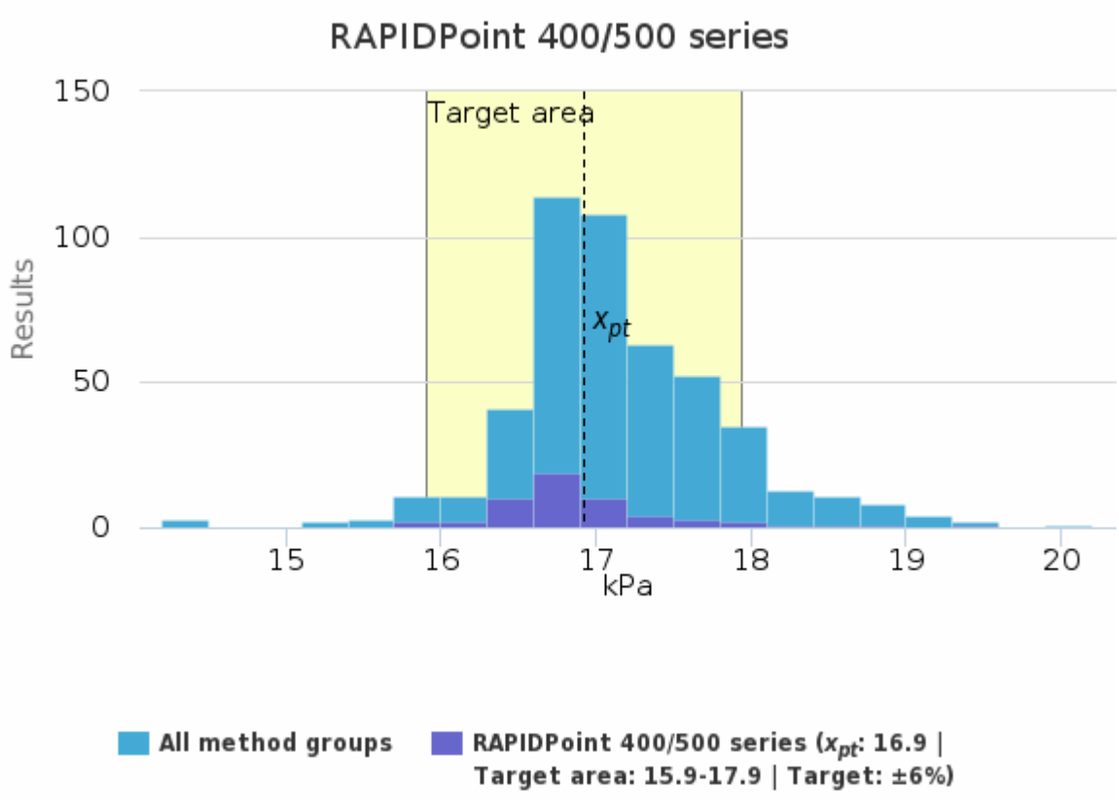
All method groups
i-STAT (x_{pt}: 18.1 | Target area: 17.1-19.2 | Target: ±6%)

Acid-base status and electrolytes, February, 1-2023





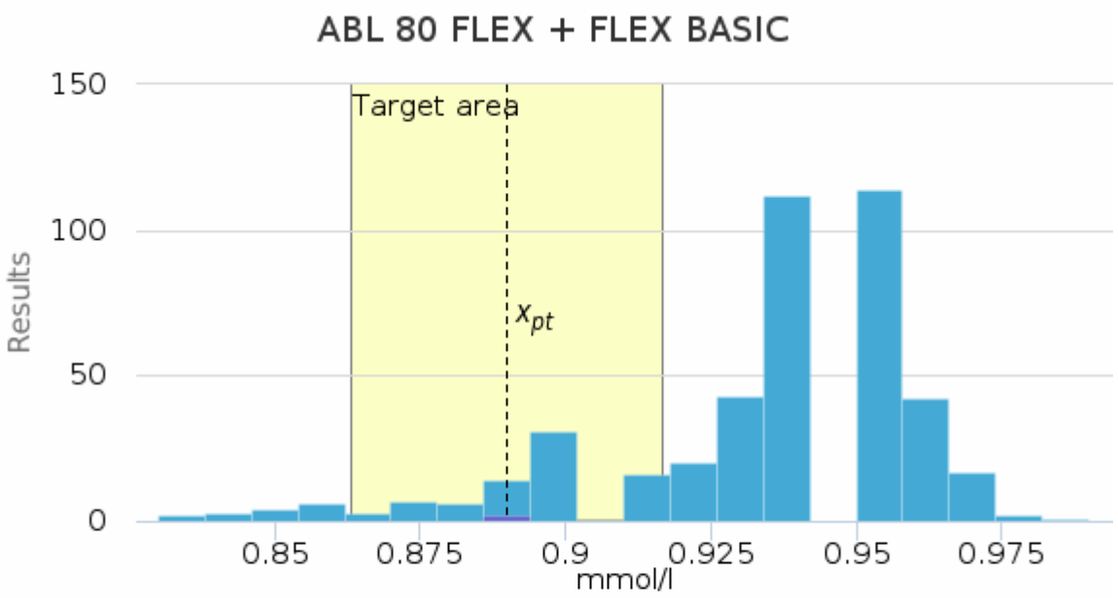


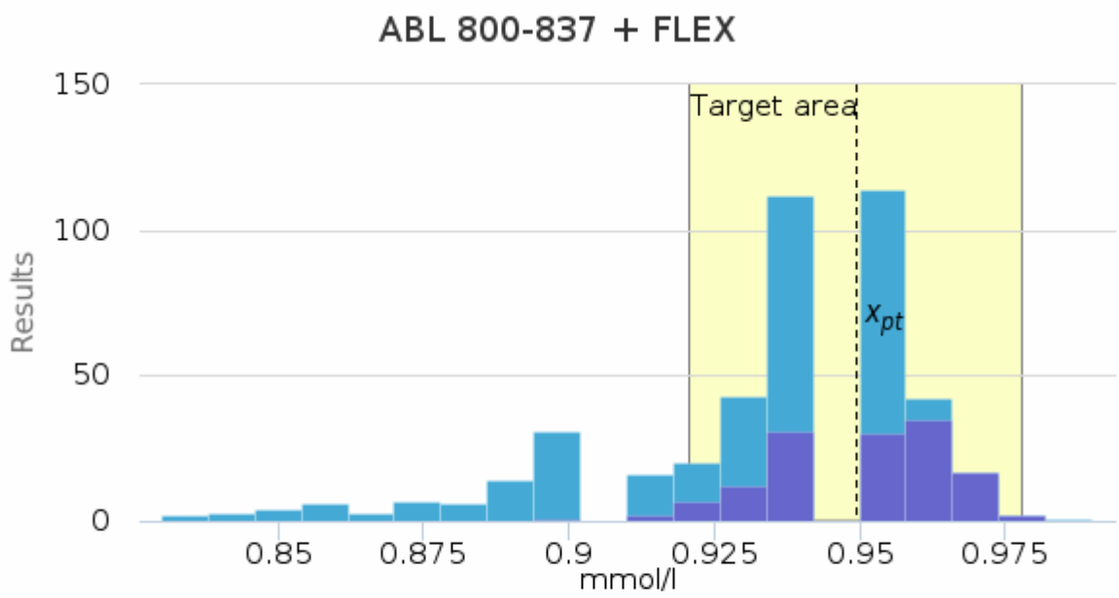


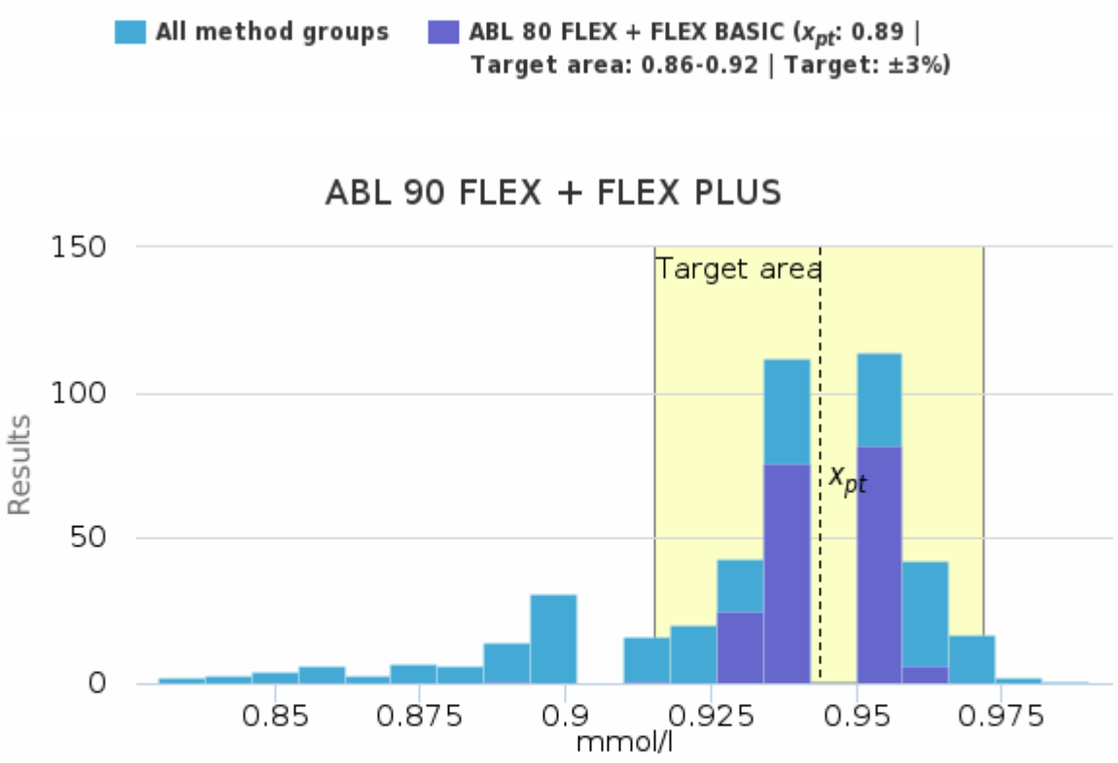
Sample S002 | Ca-ion actual, mmol/l

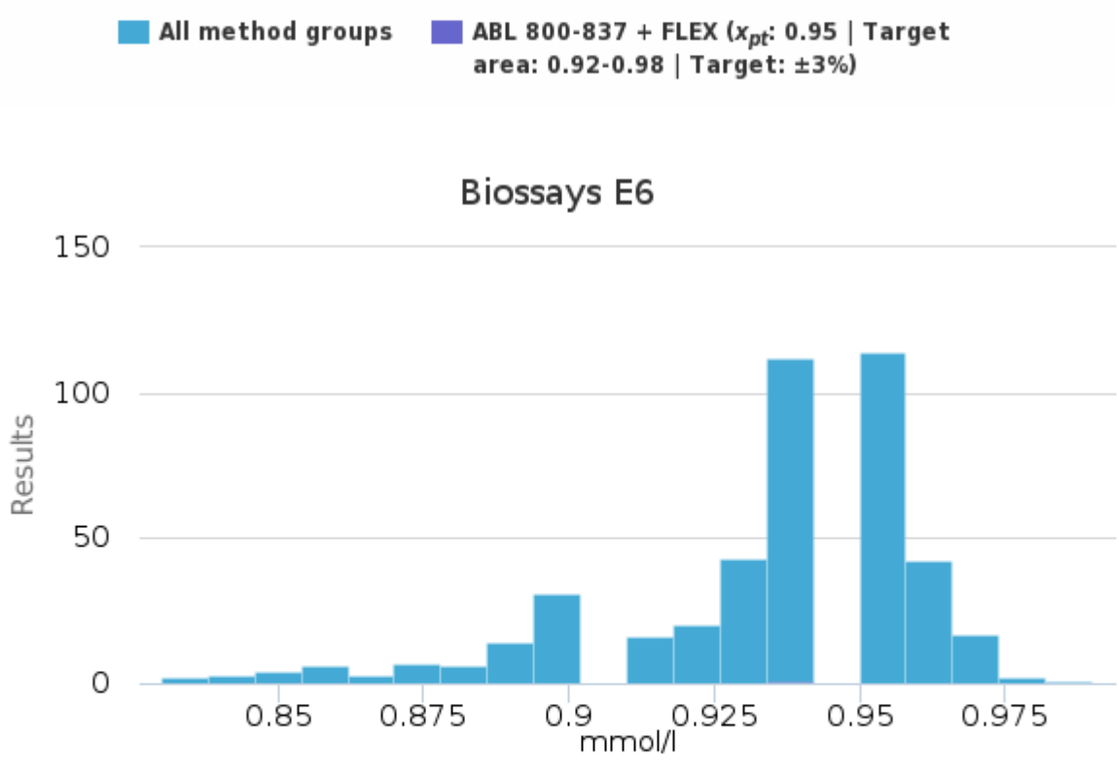
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	0.89	0.89	<0.01	<0.1	<0.01	0.89	0.89	-	2
ABL 800-837 + FLEX	0.95	0.95	0.01	1.6	<0.01	0.91	0.98	1	137
ABL 90 FLEX + FLEX PLUS	0.94	0.94	<0.01	0.8	<0.01	0.93	0.96	2	191
Biossays E6	-	-	-	-	-	0.94	0.94	-	1
Cobas b 221 / AVL 9180	0.88	0.87	0.04	4.8	0.02	0.86	0.99	-	8
epoc Blood Analysis System	0.91	0.92	0.02	1.7	<0.01	0.89	0.94	-	8
Gem Premier 3000-3500	0.87	0.87	0.02	2.7	<0.01	0.85	0.93	-	10
Gem Premier 4000	0.90	0.89	0.03	3.7	0.02	0.88	0.95	-	4
Gem Premier 5000	0.85	0.85	0.03	3.8	0.01	0.83	0.94	-	10
i-STAT	0.91	0.91	0.02	2.2	<0.01	0.88	0.95	-	12
i-STAT Alinity	0.92	0.92	0.02	1.7	<0.01	0.89	0.94	-	6
Nova 8	-	-	-	-	-	0.93	0.93	-	1
RAPIDLab 1200 series (RL1240-RL1265)	0.87	0.87	<0.01	<0.1	<0.01	0.87	0.87	-	2
RAPIDPoint 400/500 series	0.90	0.90	0.01	1.3	<0.01	0.87	0.94	1	51
All	**0.94**	**0.94**	**0.02**	**2.6**	**<0.01**	**0.86**	**0.99**	**9**	**443**

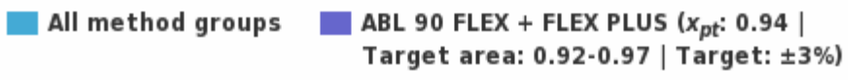
Sample S002 | Ca-ion actual, mmol/l| histogram summaries in LabScala



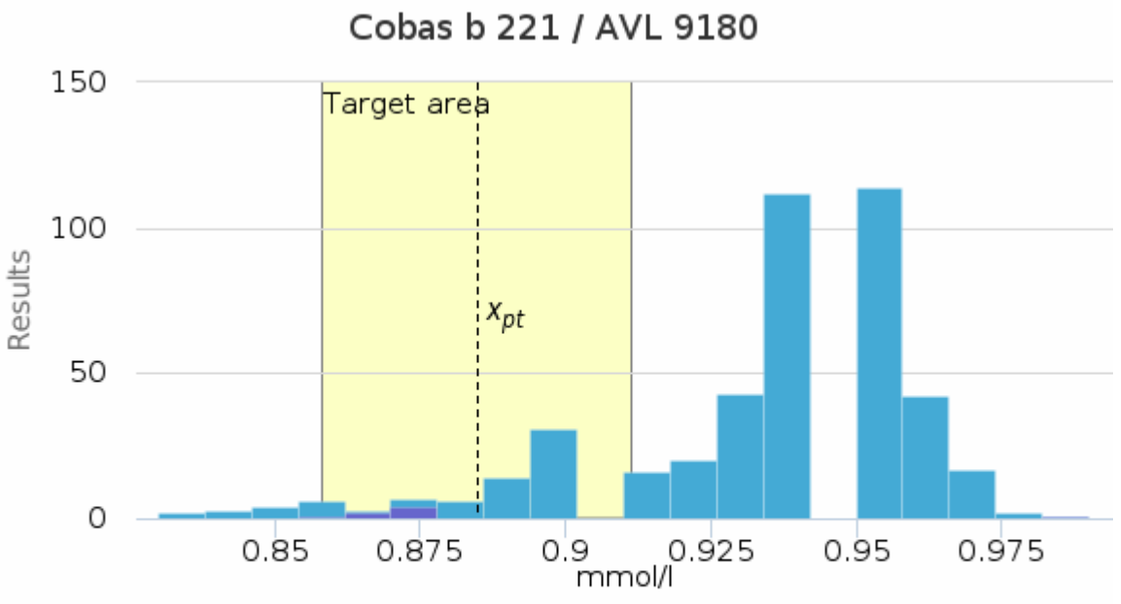


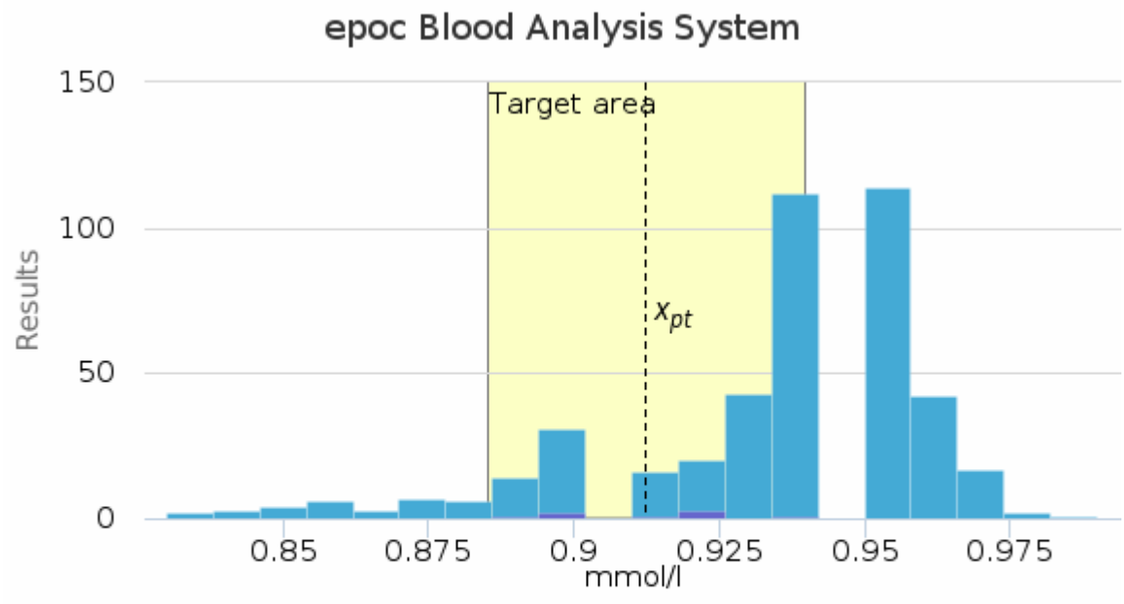






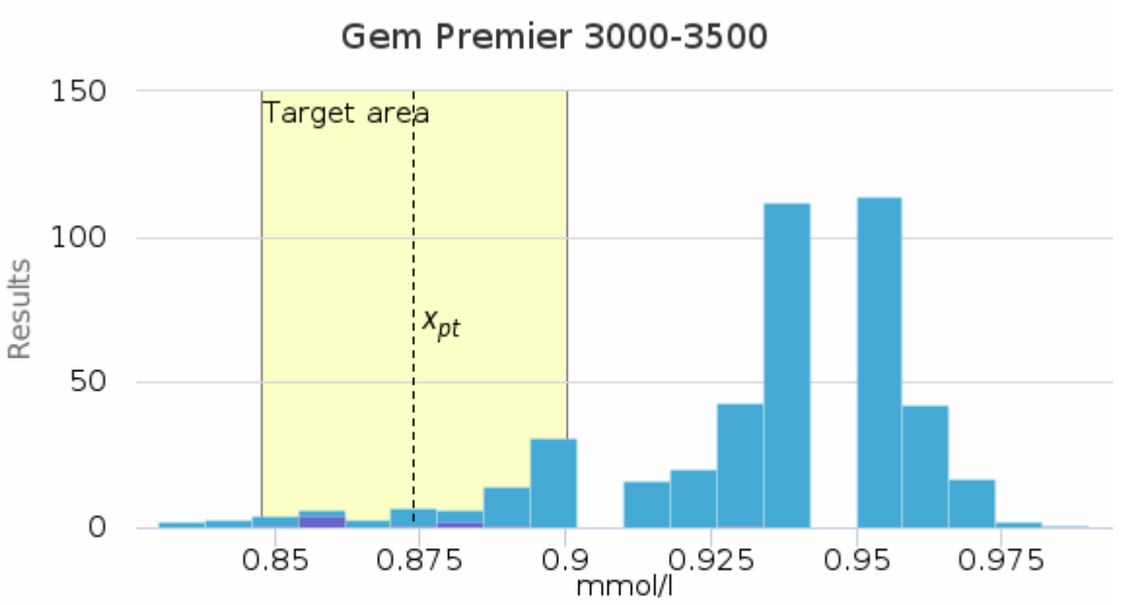
Acid-base status and electrolytes, February, 1-2023

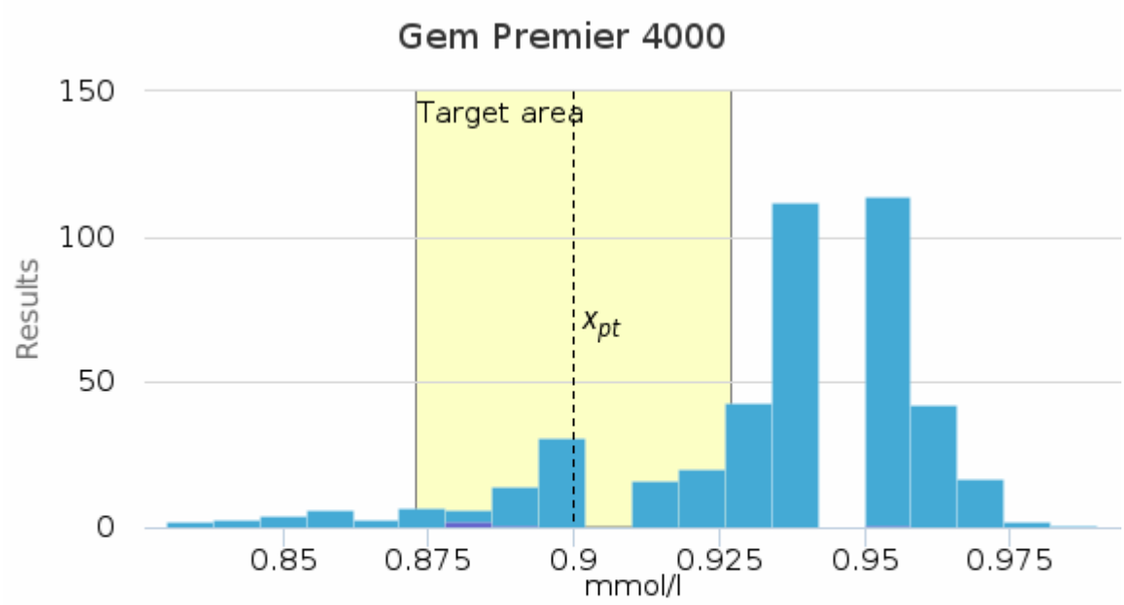




All method groups Cobas b 221 / AVL 9180 (x_{pt}: 0.88 | Target area: 0.86-0.91 | Target: ±3%)

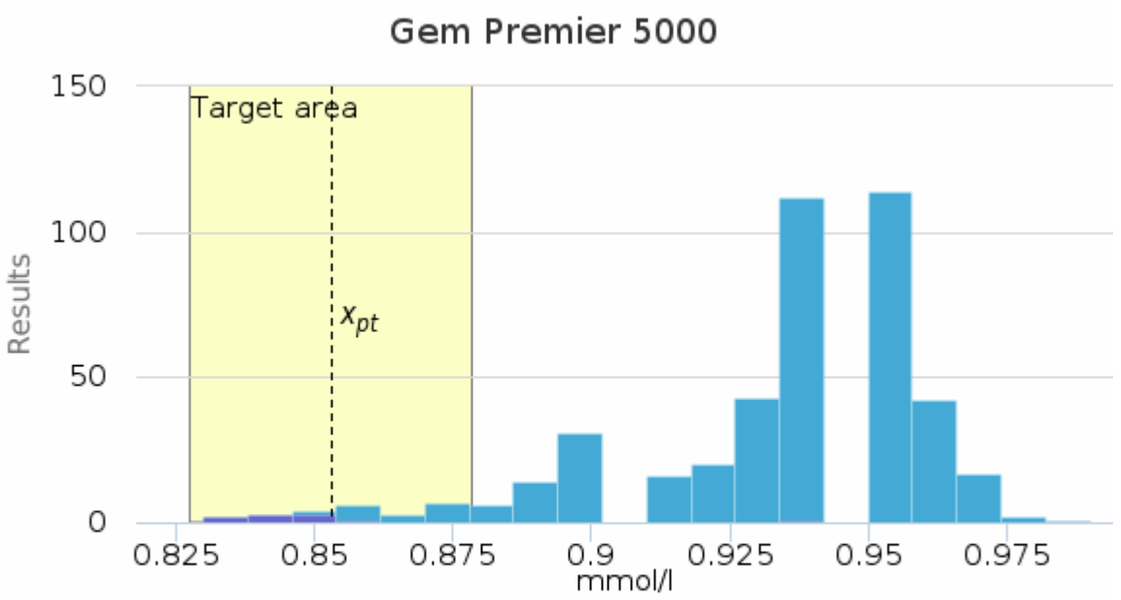
All method groups epoc Blood Analysis System (x_{pt}: 0.91 | Target area: 0.89-0.94 | Target: ±3%)

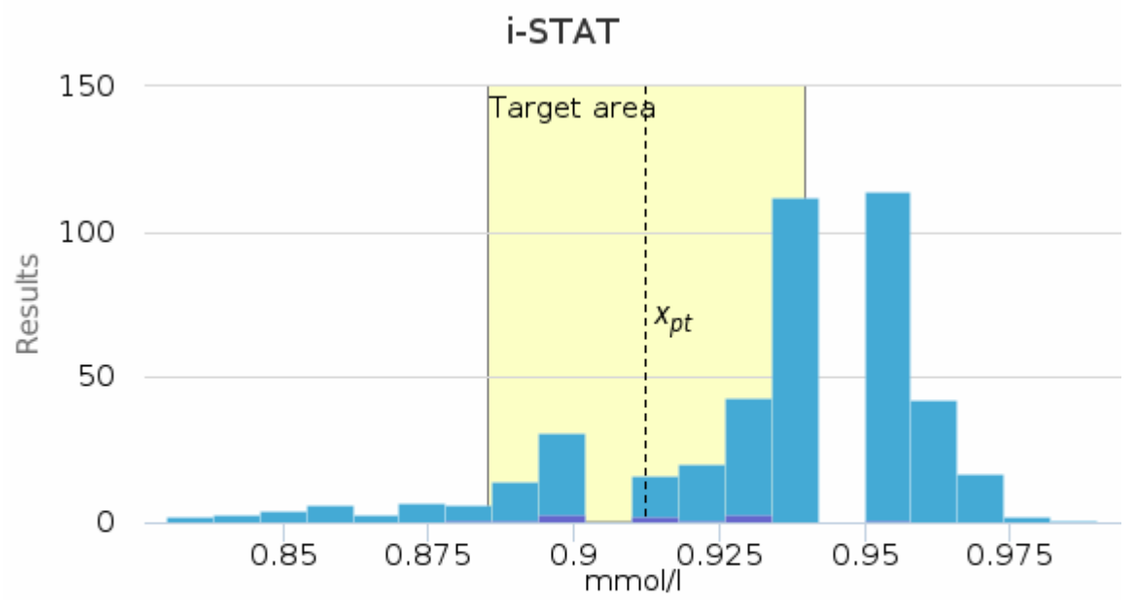




All method groups Gem Premier 3000-3500 (x_{pt}: 0.87 | Target area: 0.85-0.90 | Target: ±3%)

All method groups Gem Premier 4000 (x_{pt}: 0.90 | Target area: 0.87-0.93 | Target: ±3%)

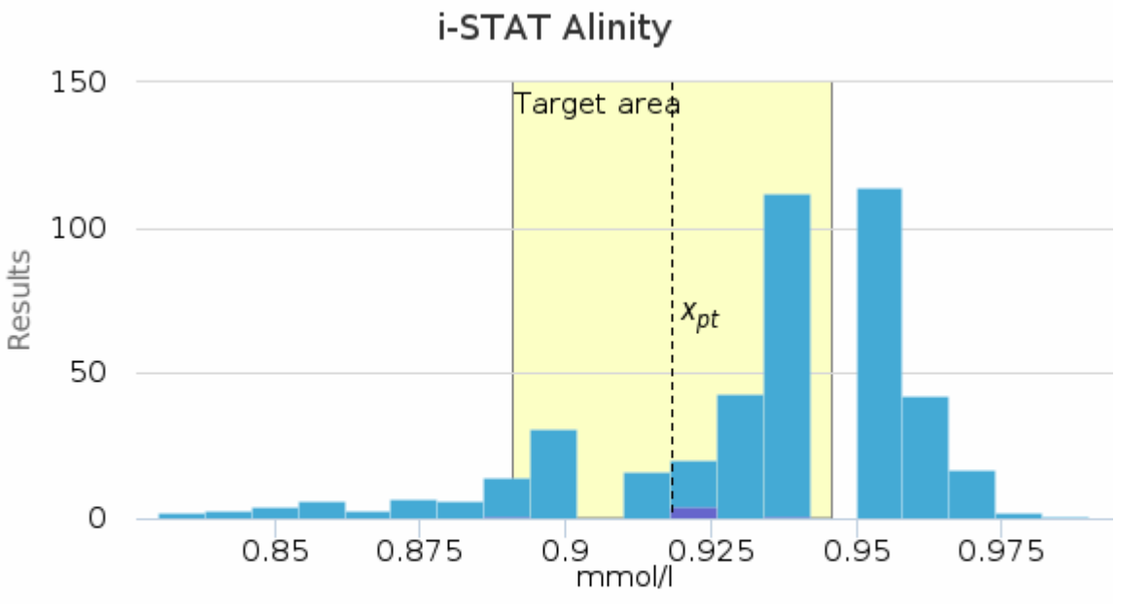




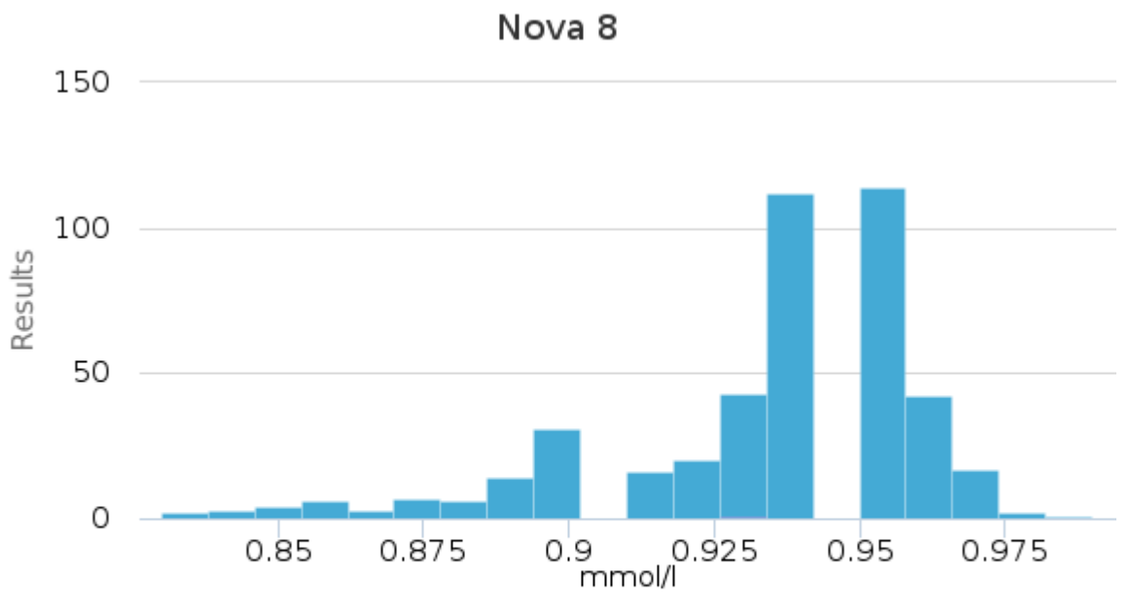
All method groups Gem Premier 5000 (x_{pt}: 0.85 | Target area: 0.83-0.88 | Target: ±3%)

All method groups i-STAT (x_{pt}: 0.91 | Target area: 0.89-0.94 | Target: ±3%)

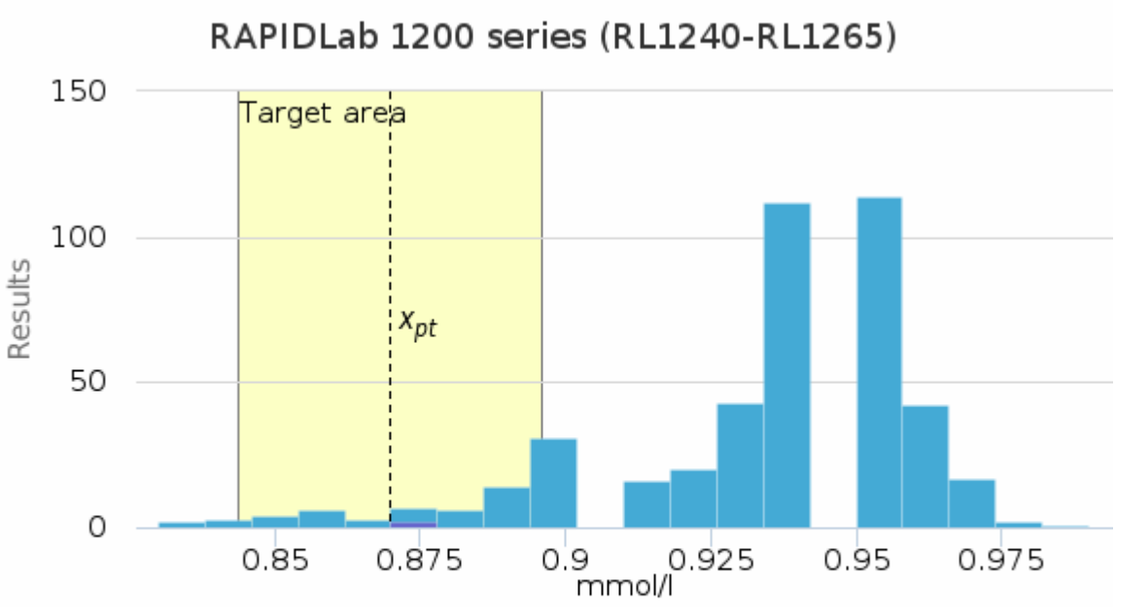
Acid-base status and electrolytes, February, 1-2023



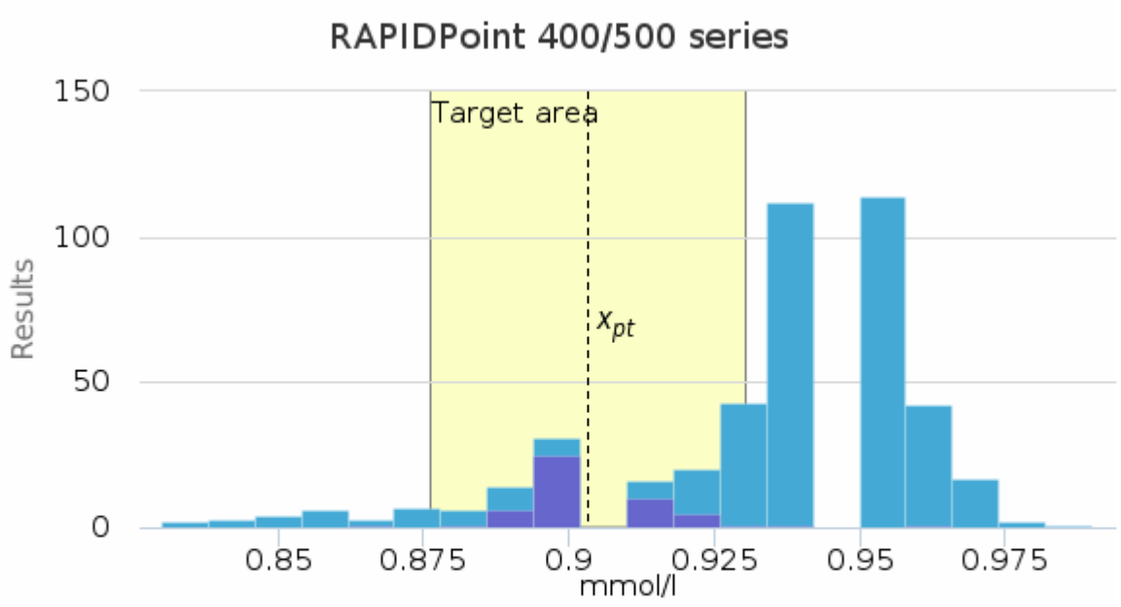
All method groups i-STAT Alinity (x_{pt}: 0.92 | Target area: 0.89-0.95 | Target: ±3%)



All method groups Nova 8



All method groups RAPIDLab 1200 series (RL1240-RL1265) (x_{pt}: 0.87 | Target area: 0.84-0.90 | Target: ±3%)

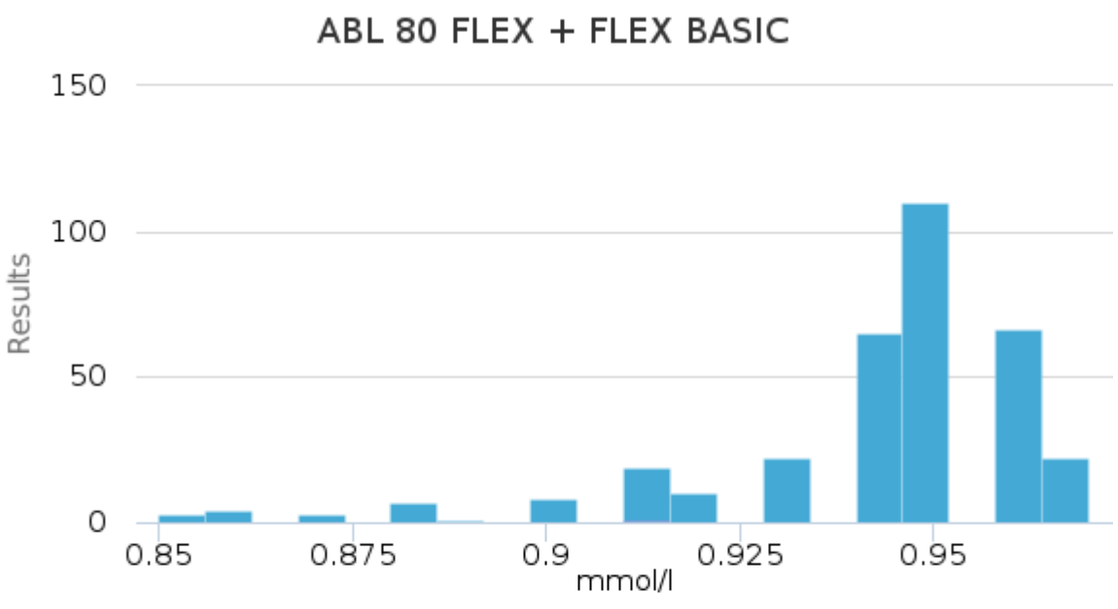


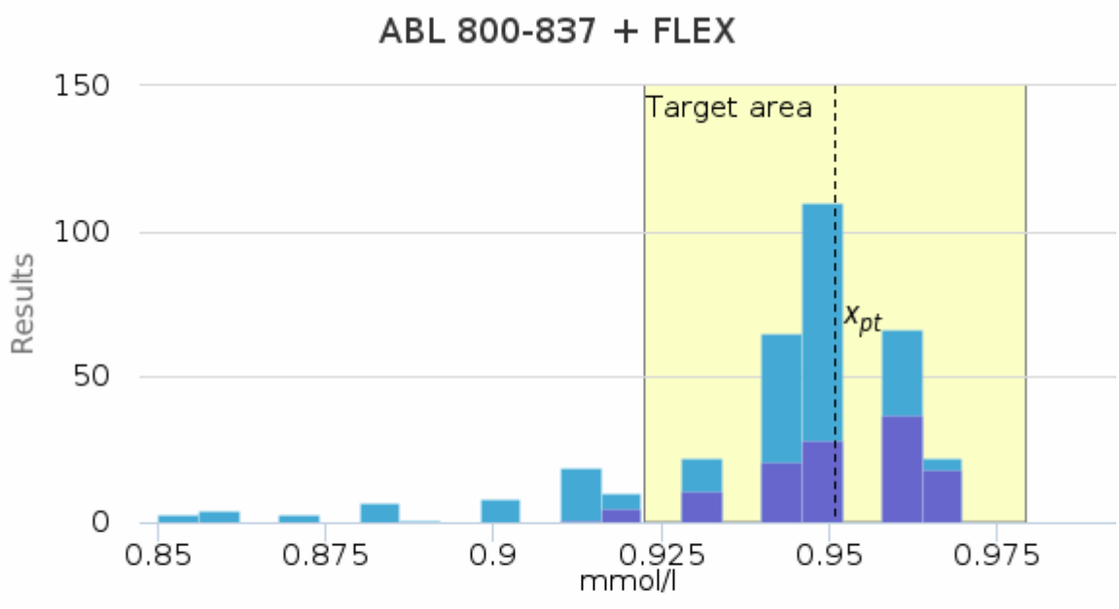
All method groups RAPIDPoint 400/500 series (x_{pt}: 0.90 | Target area: 0.88-0.93 | Target: ±3%)

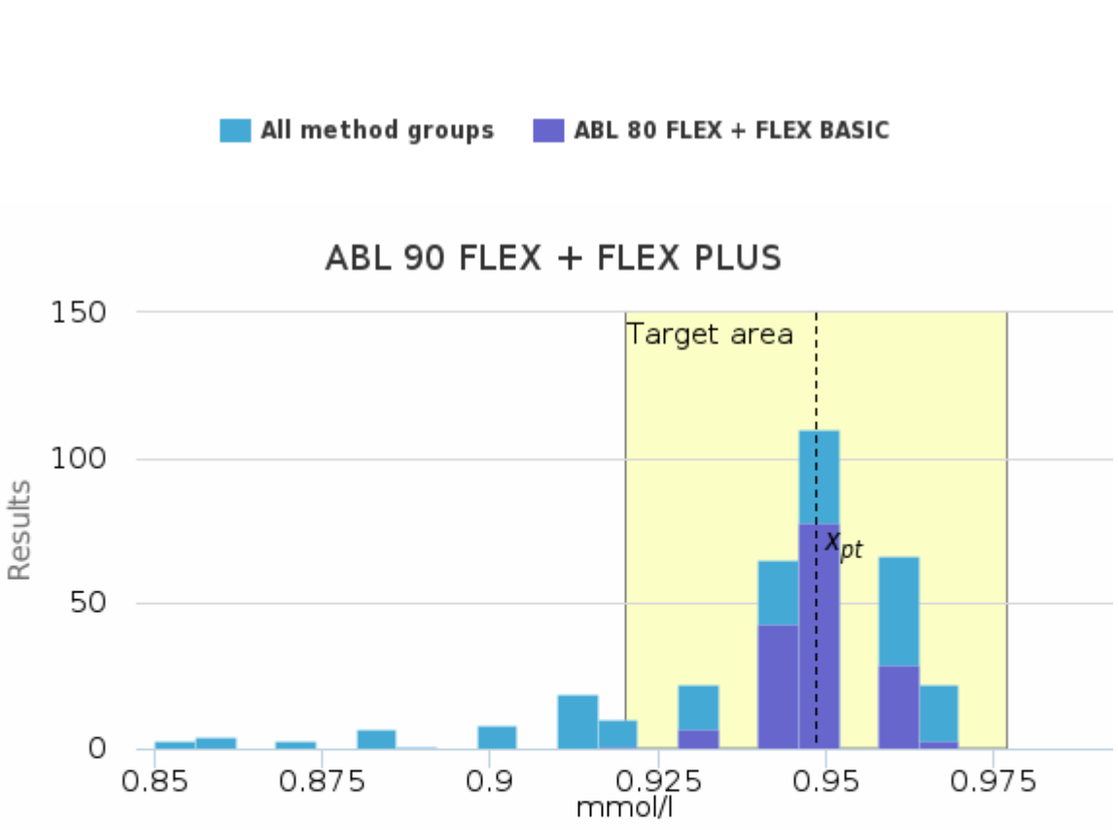
Sample S002 | Ca-ion adjusted, mmol/l

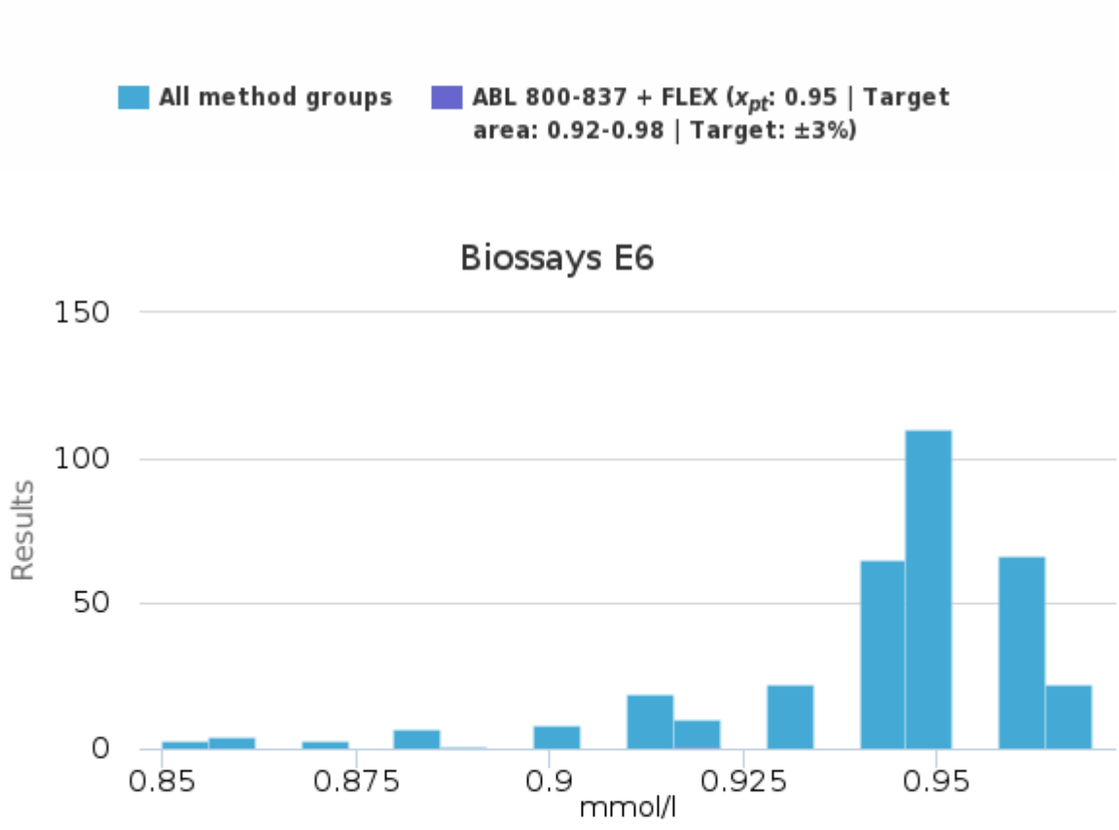
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	-	-	-	-	-	0.91	0.91	-	1
ABL 800-837 + FLEX	0.95	0.95	0.01	1.5	<0.01	0.91	0.97	-	121
ABL 90 FLEX + FLEX PLUS	0.95	0.95	<0.01	0.9	<0.01	0.93	0.97	1	161
Biossays E6	-	-	-	-	-	0.92	0.92	-	1
Cobas b 221 / AVL 9180	0.87	0.87	<0.01	1.0	<0.01	0.86	0.88	-	5
Gem Premier 3000-3500	-	-	-	-	-	0.95	0.95	-	1
Gem Premier 4000	0.91	0.91	<0.01	0.8	<0.01	0.90	0.91	-	2
Gem Premier 5000	0.86	0.86	0.01	1.2	<0.01	0.85	0.88	-	8
i-STAT	0.94	0.93	0.01	1.2	<0.01	0.93	0.95	-	3
Konelab	-	-	-	-	-	0.89	0.89	-	1
Nova 8	-	-	-	-	-	0.95	0.95	-	1
RAPIDLab 1200 series (RL1240-RL1265)	0.88	0.88	<0.01	<0.1	<0.01	0.88	0.88	-	2
RAPIDPoint 400/500 series	0.91	0.91	0.01	1.5	<0.01	0.88	0.95	1	33
All	**0.94**	**0.95**	**0.02**	**2.0**	**<0.01**	**0.88**	**0.97**	**10**	**340**

Sample S002 | Ca-ion adjusted, mmol/l| histogram summaries in LabScala

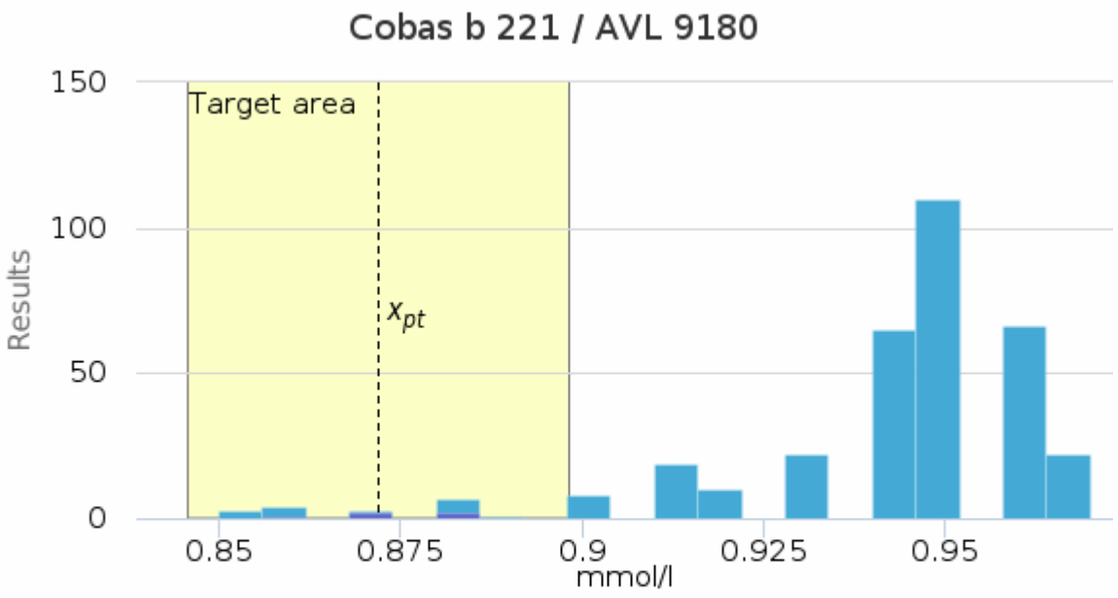


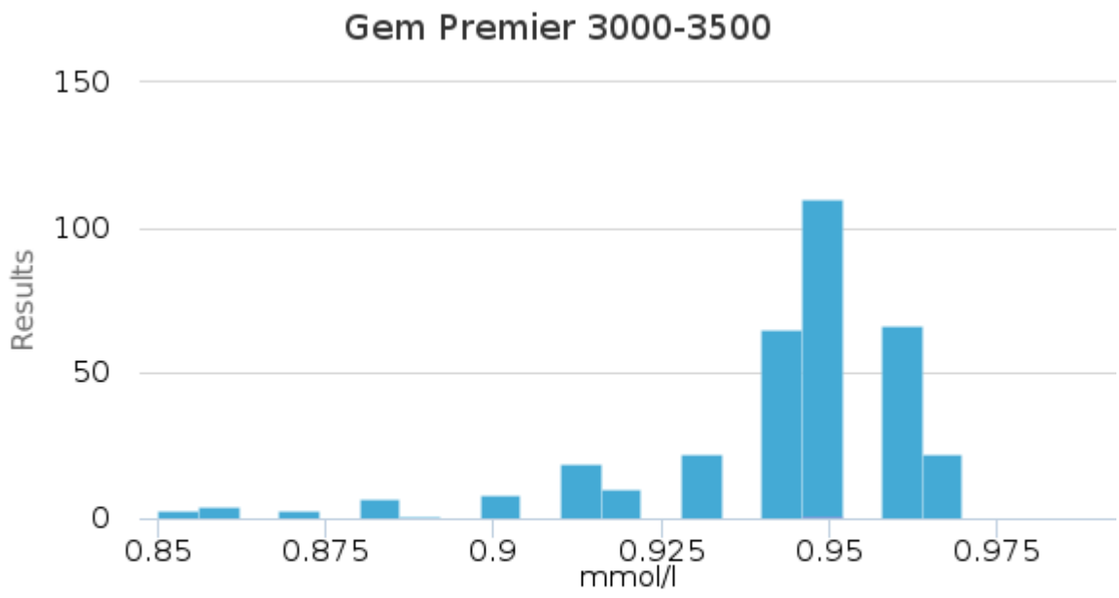


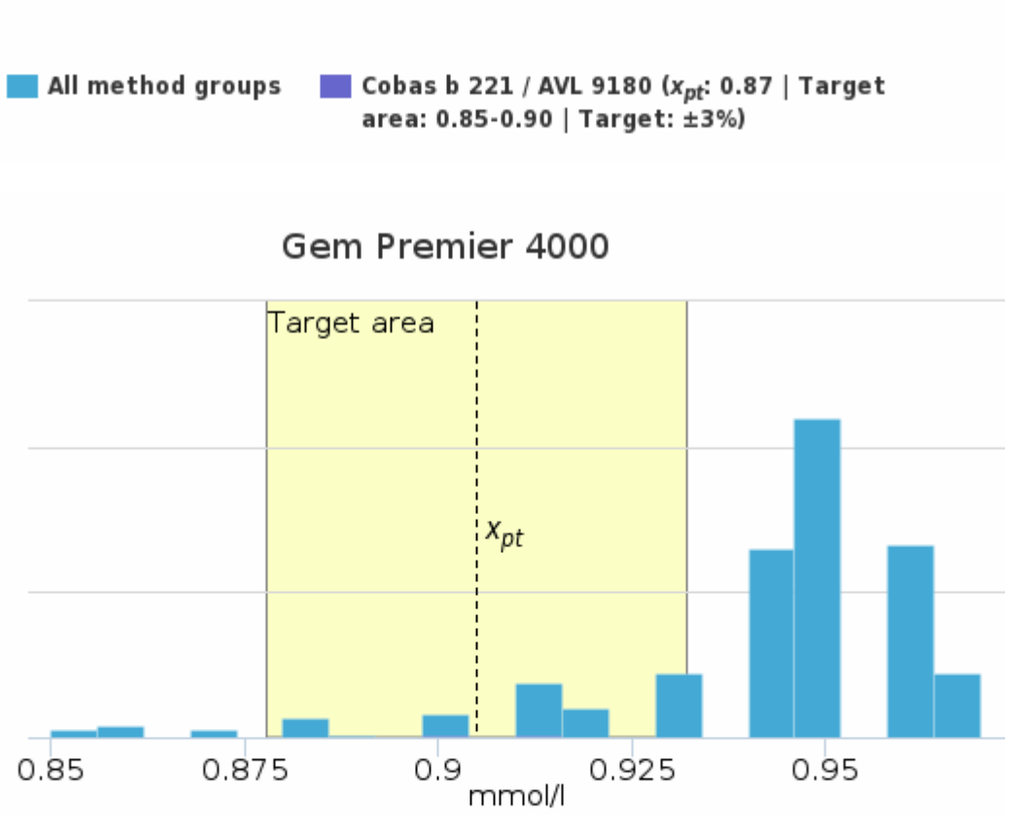


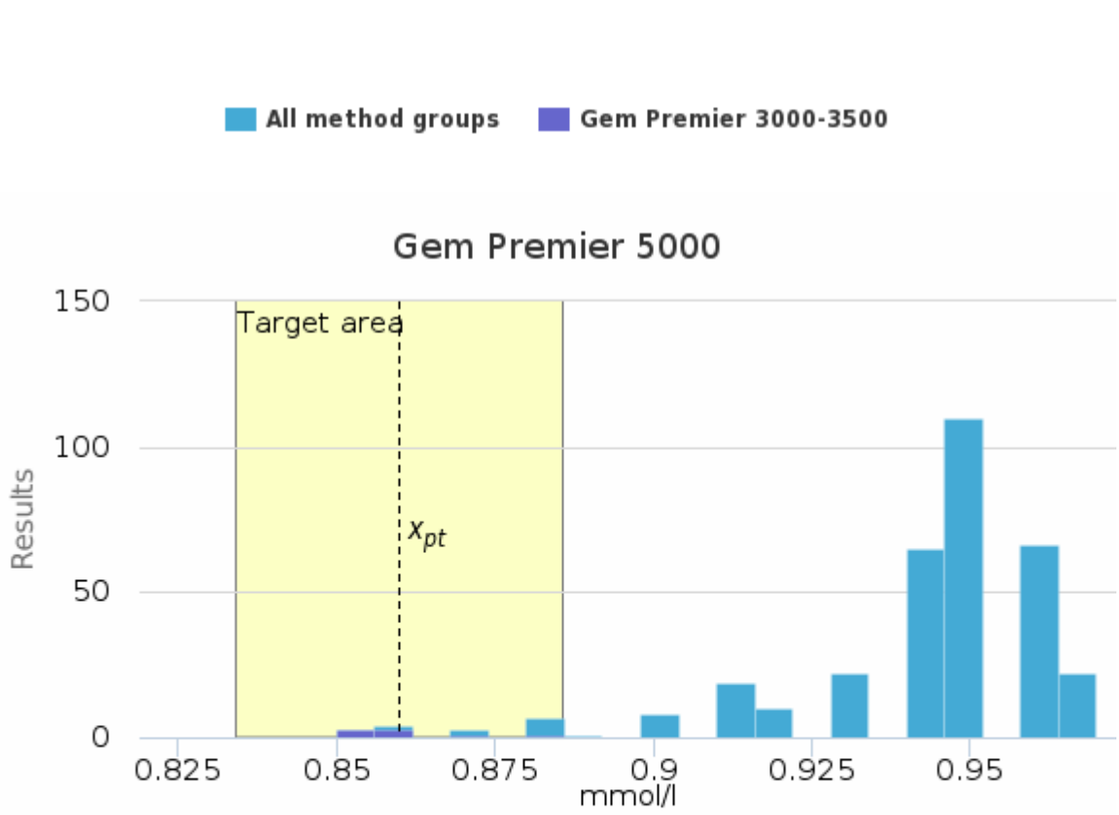


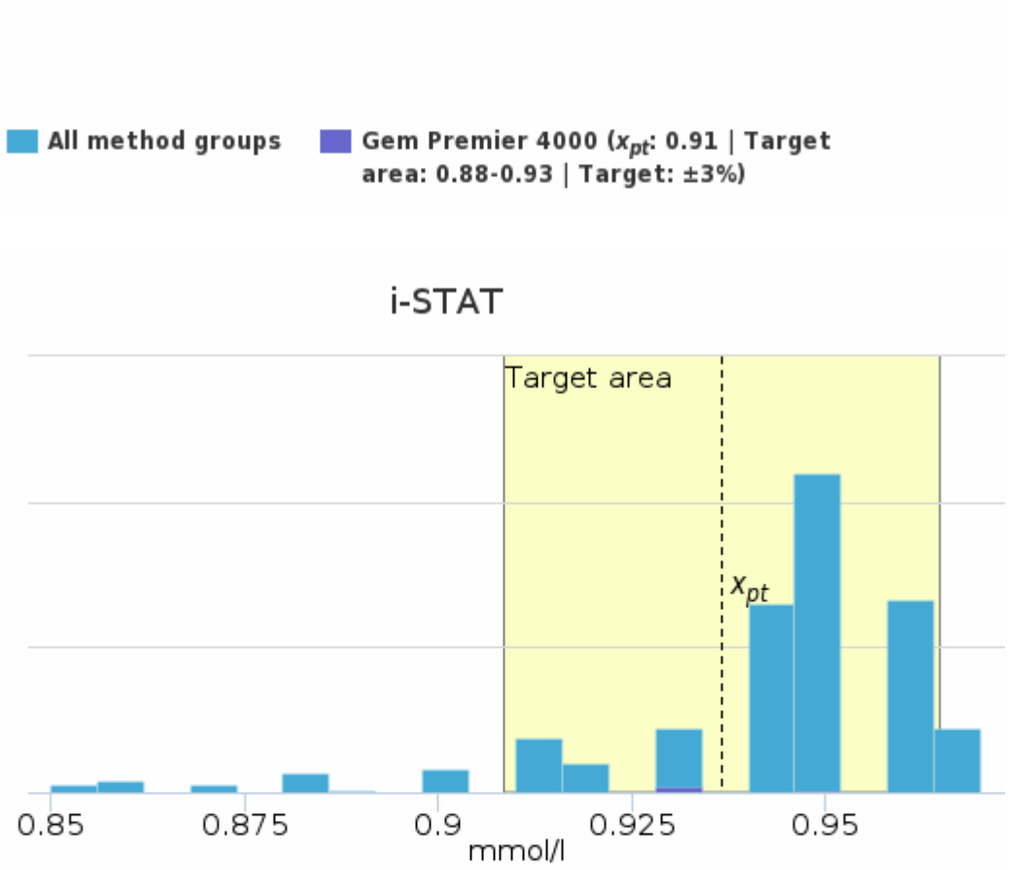
Acid-base status and electrolytes, February, 1-2023

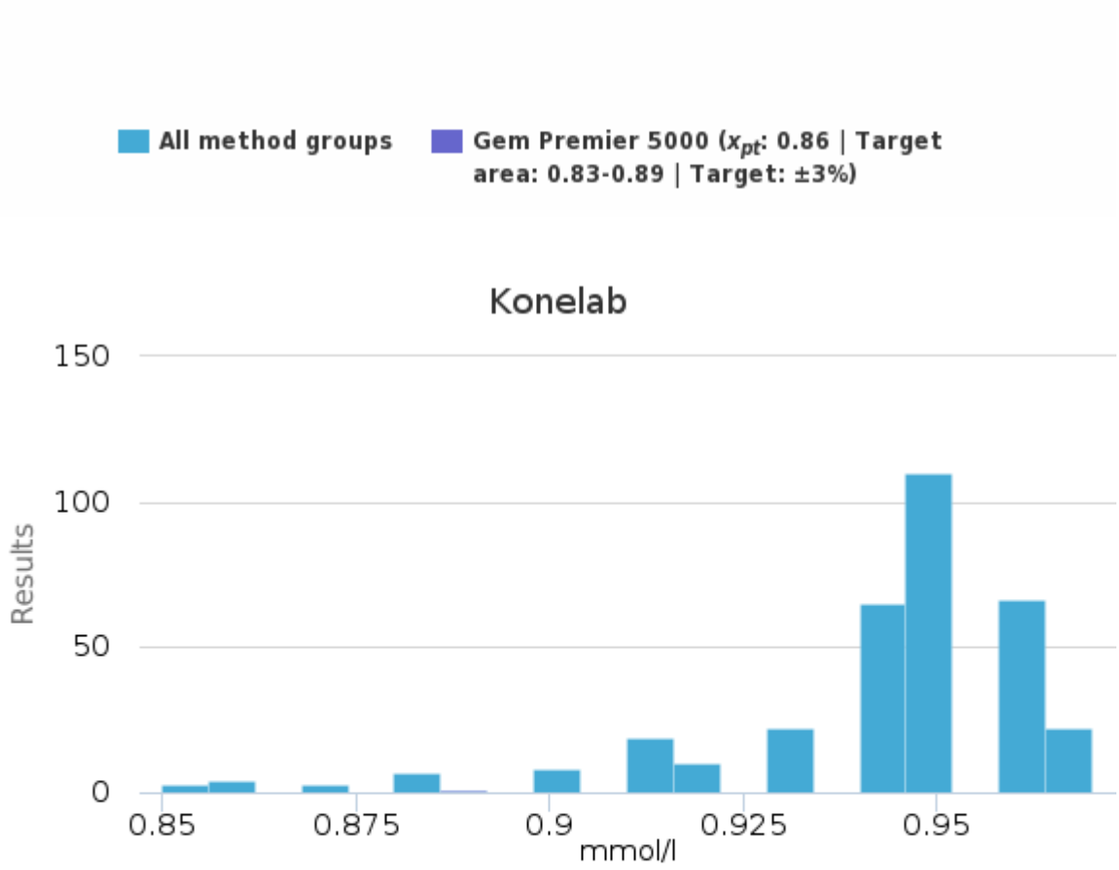




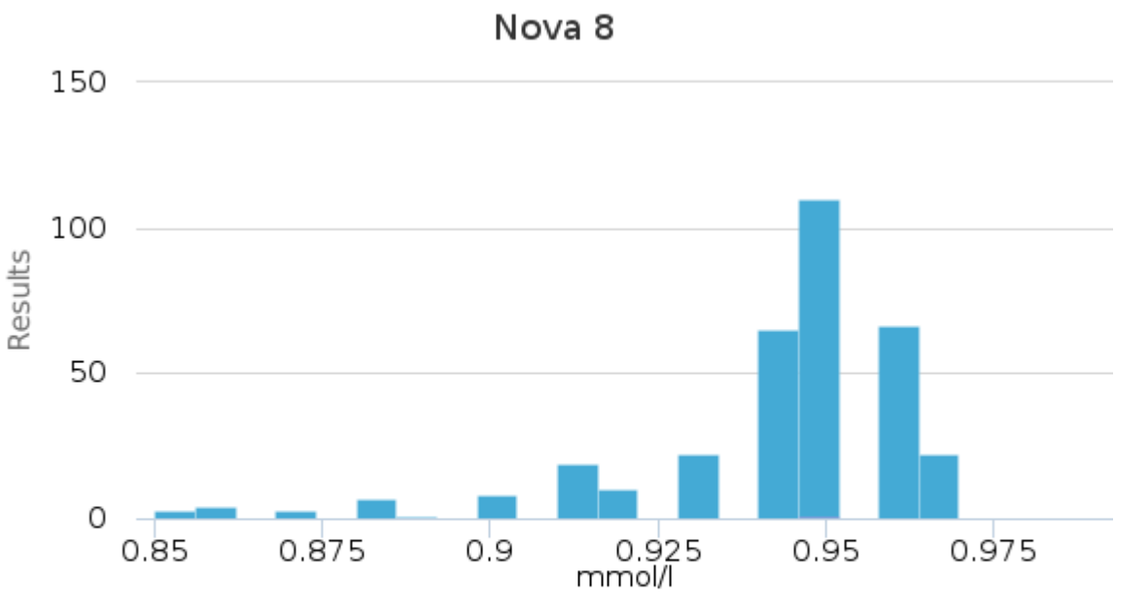


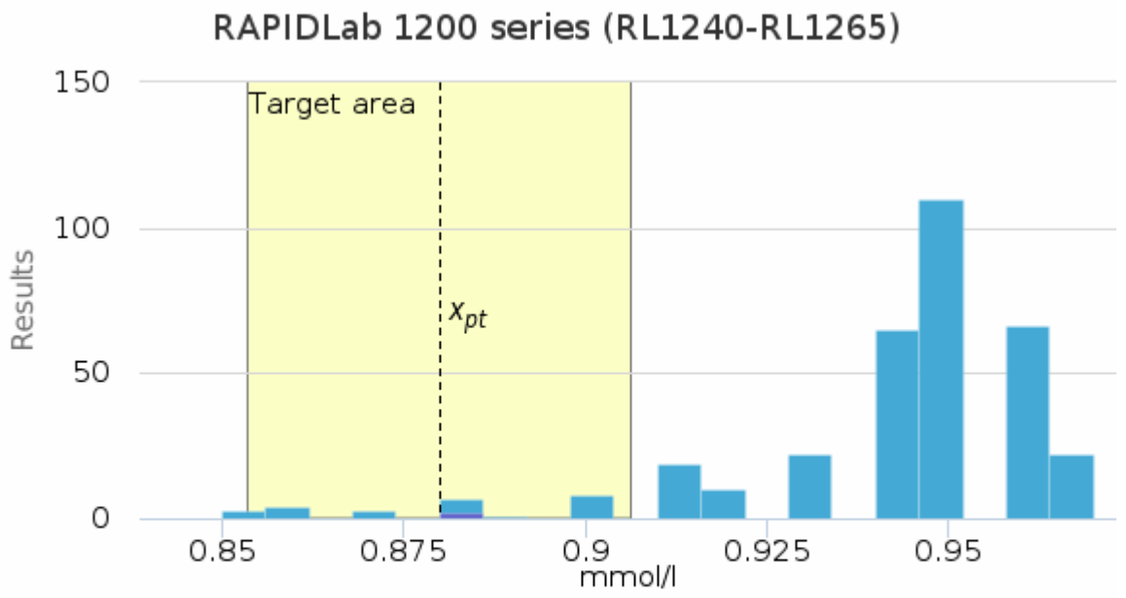


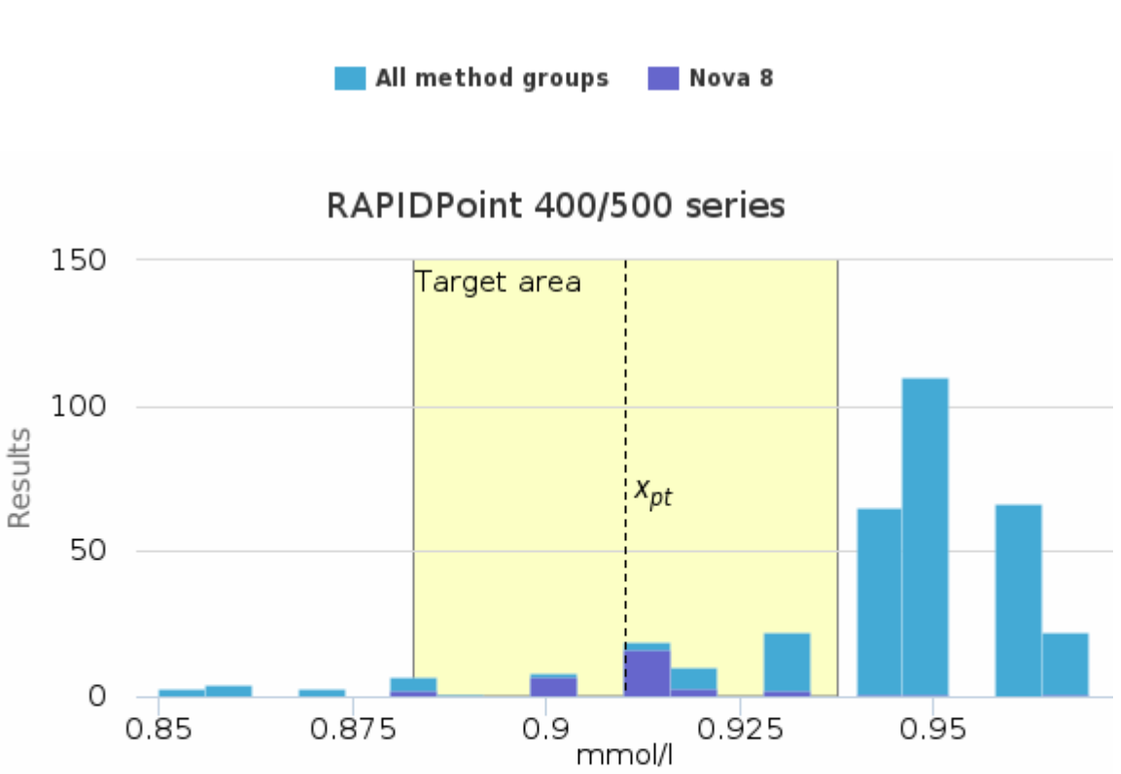


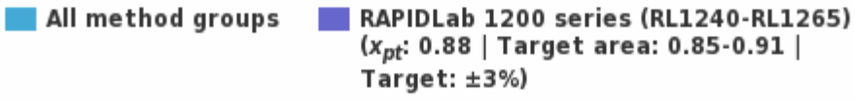


Acid-base status and electrolytes, February, 1-2023





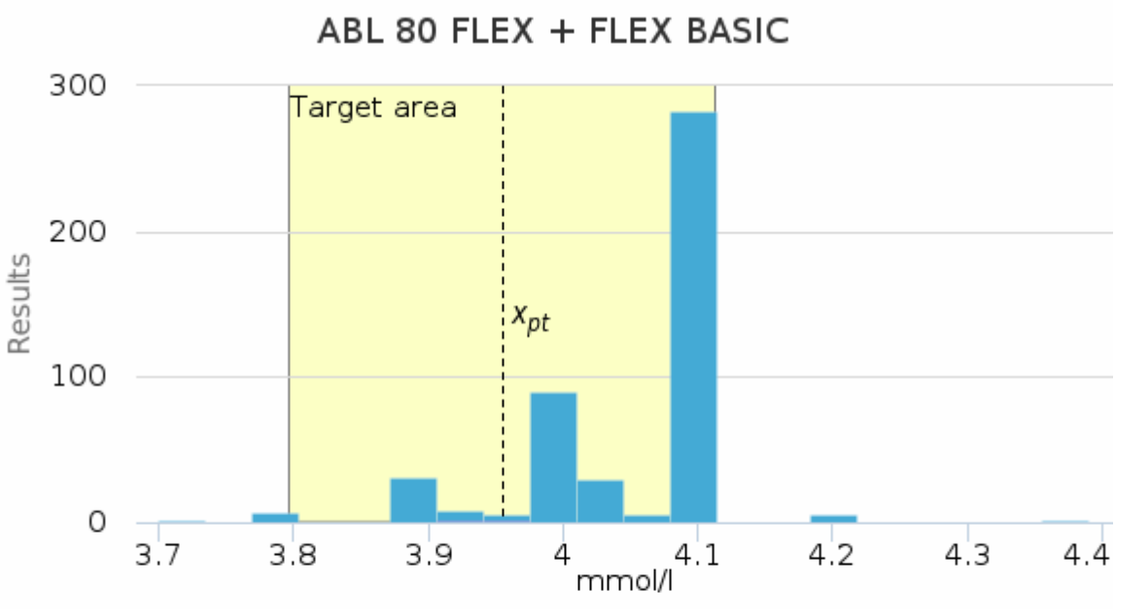


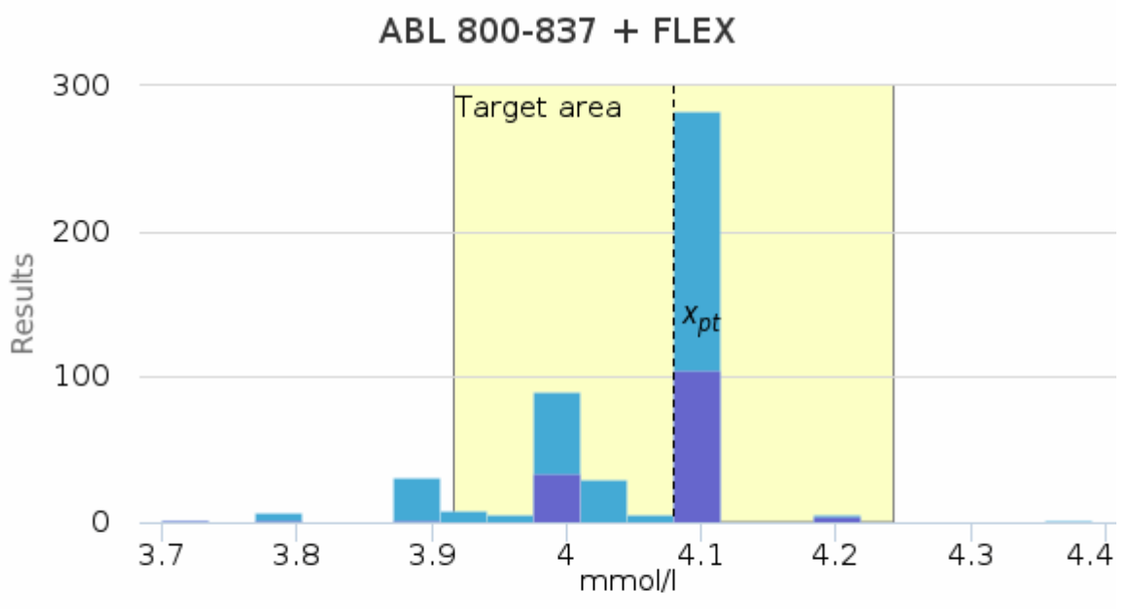


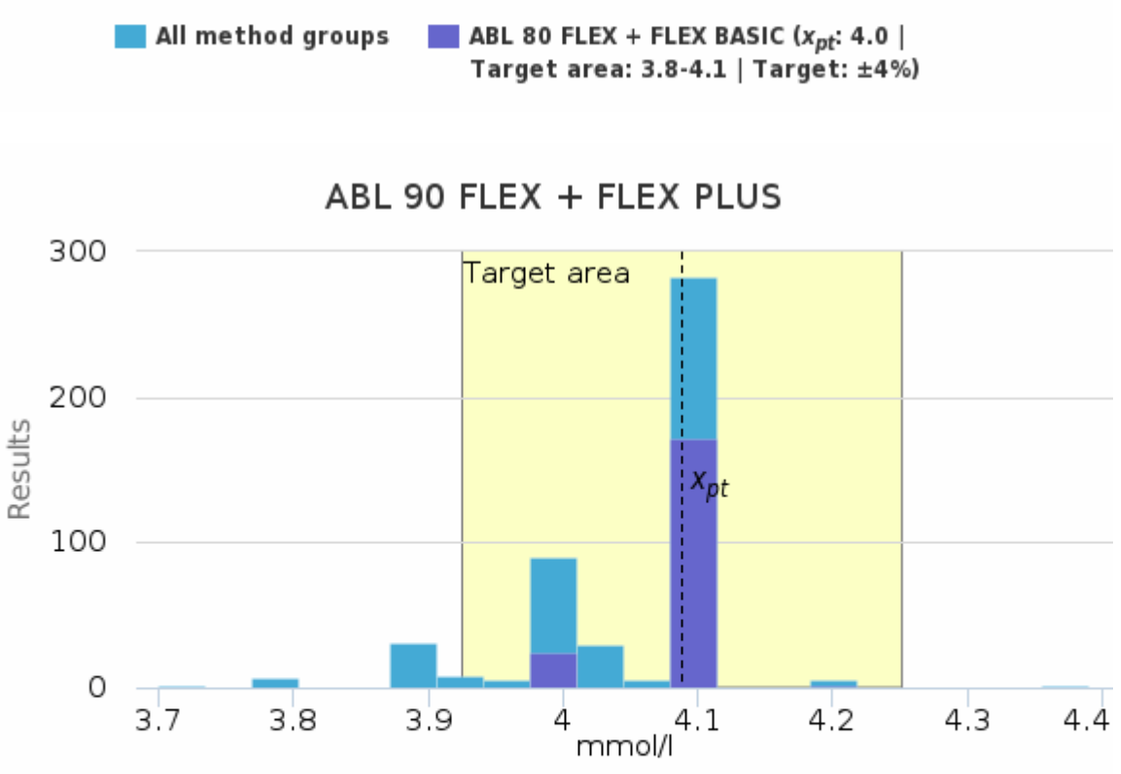
Sample S002 | K, mmol/l

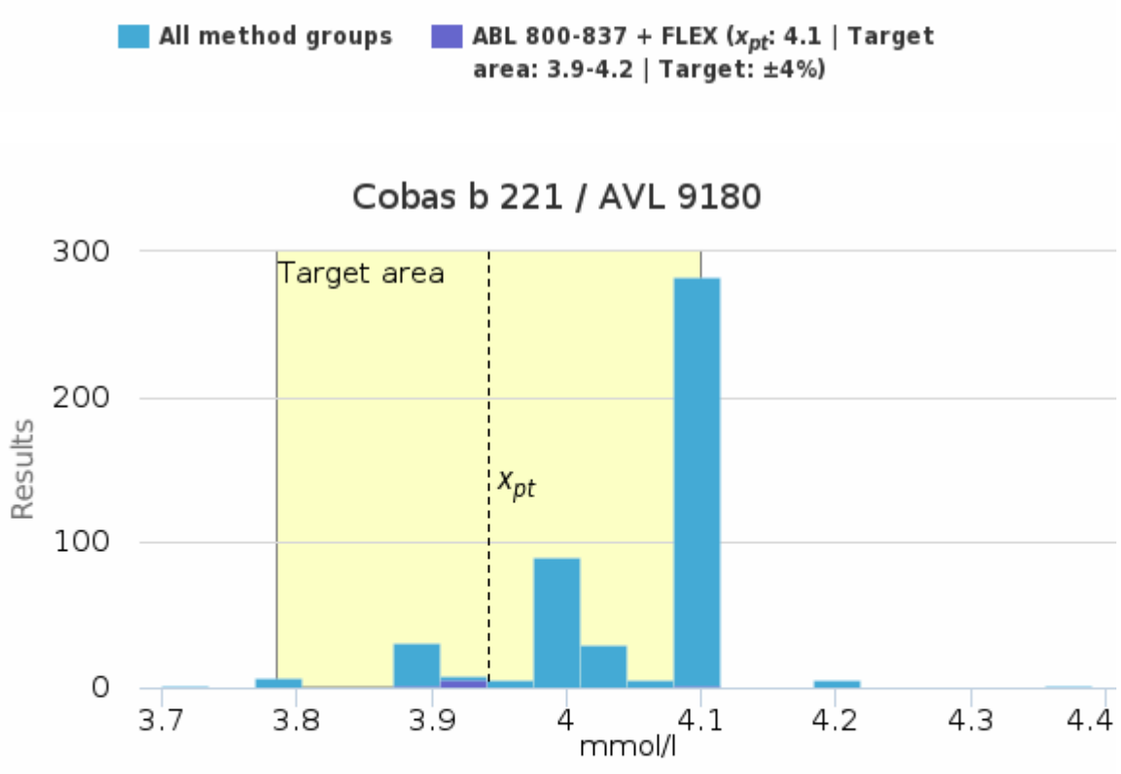
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	4.0	4.0	<0.1	0.5	<0.1	3.9	4.0	-	2
ABL 800-837 + FLEX	4.1	4.1	<0.1	1.2	<0.1	4.0	4.2	4	145
ABL 90 FLEX + FLEX PLUS	4.1	4.1	<0.1	0.8	<0.1	4.0	4.2	-	196
Cobas b 221 / AVL 9180	3.9	3.9	<0.1	1.6	<0.1	3.9	4.1	-	8
epoc Blood Analysis System	4.1	4.1	<0.1	1.3	<0.1	4.0	4.1	-	9
Gem Premier 3000-3500	3.9	3.9	<0.1	<0.1	<0.1	3.9	3.9	1	10
Gem Premier 4000	4.0	4.0	<0.1	1.3	<0.1	3.9	4.0	-	4
Gem Premier 5000	3.9	3.9	<0.1	2.1	<0.1	3.8	4.0	-	10
Indiko Plus	-	-	-	-	-	4.0	4.0	-	1
i-STAT	3.9	3.9	<0.1	1.2	<0.1	3.9	4.0	1	16
i-STAT Alinity	3.9	3.9	<0.1	1.3	<0.1	3.9	4.0	-	8
RAPIDLab 1200 series (RL1240-RL1265)	4.0	4.0	<0.1	0.4	<0.1	3.9	4.0	-	2
RAPIDPoint 400/500 series	4.0	4.0	<0.1	0.6	<0.1	4.0	4.1	1	55
All	**4.1**	**4.1**	**<0.1**	**1.6**	**<0.1**	**3.9**	**4.2**	**9**	**466**

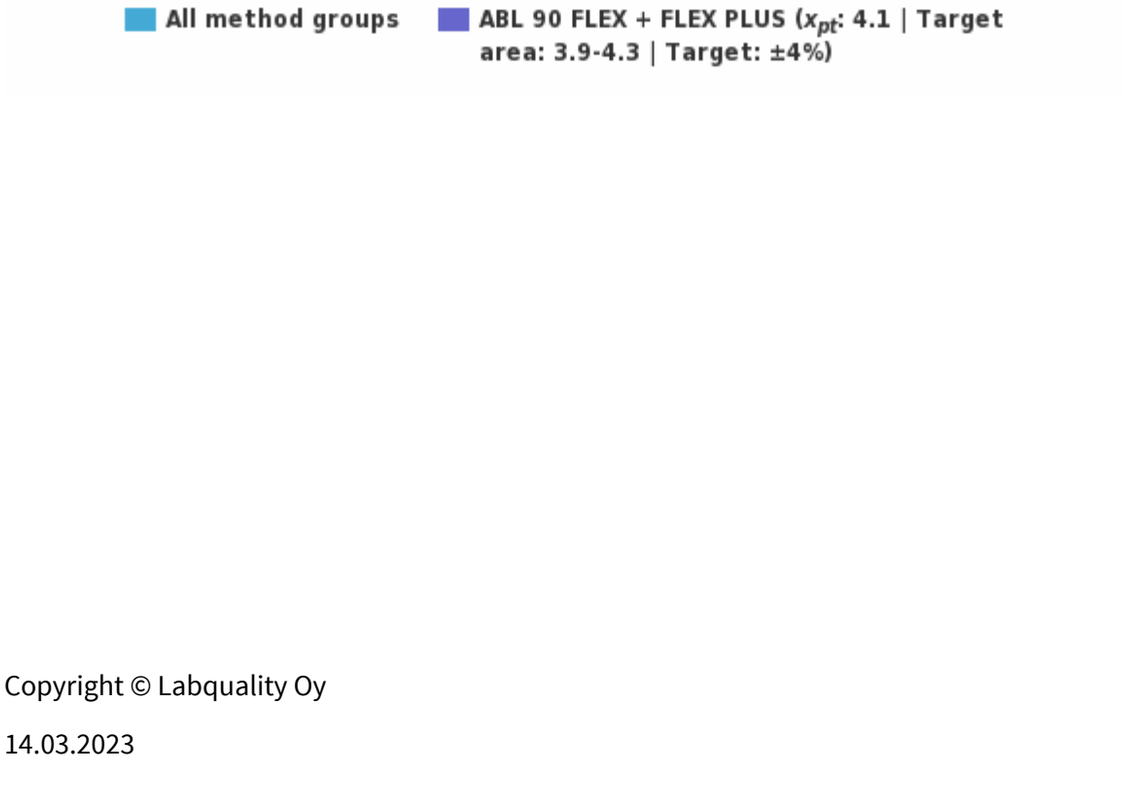
Sample S002 | K, mmol/l| histogram summaries in LabScala

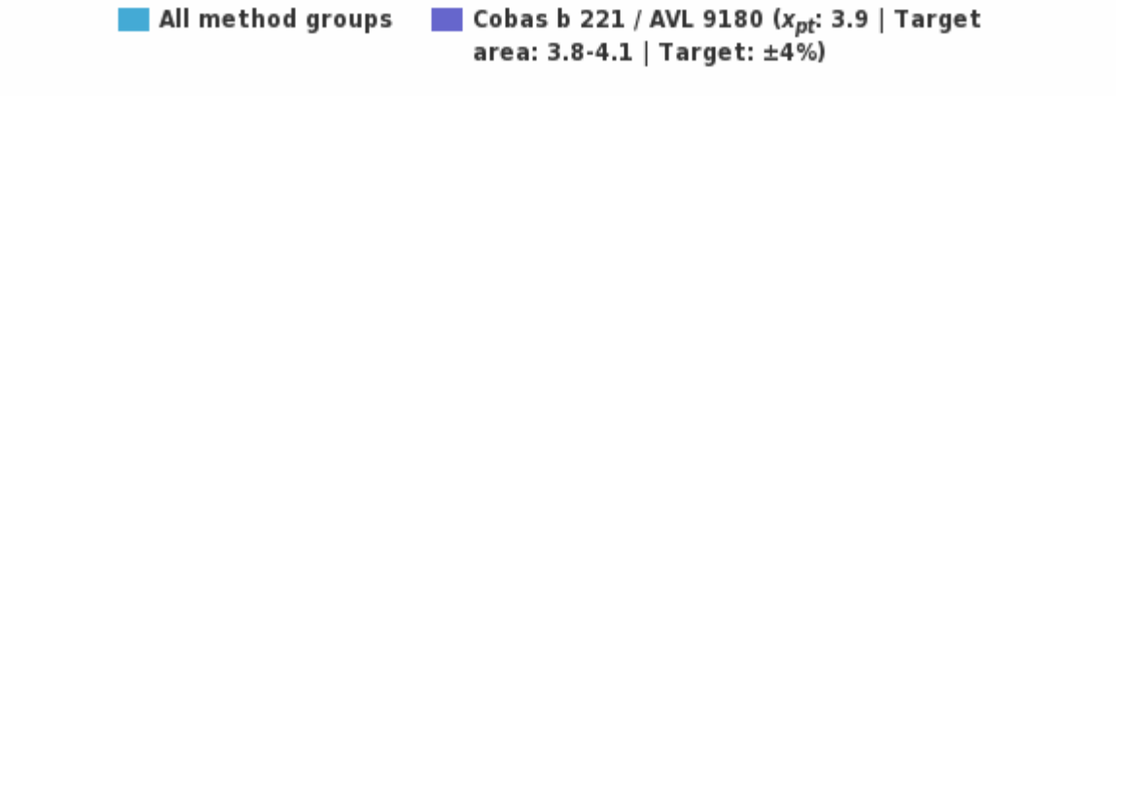




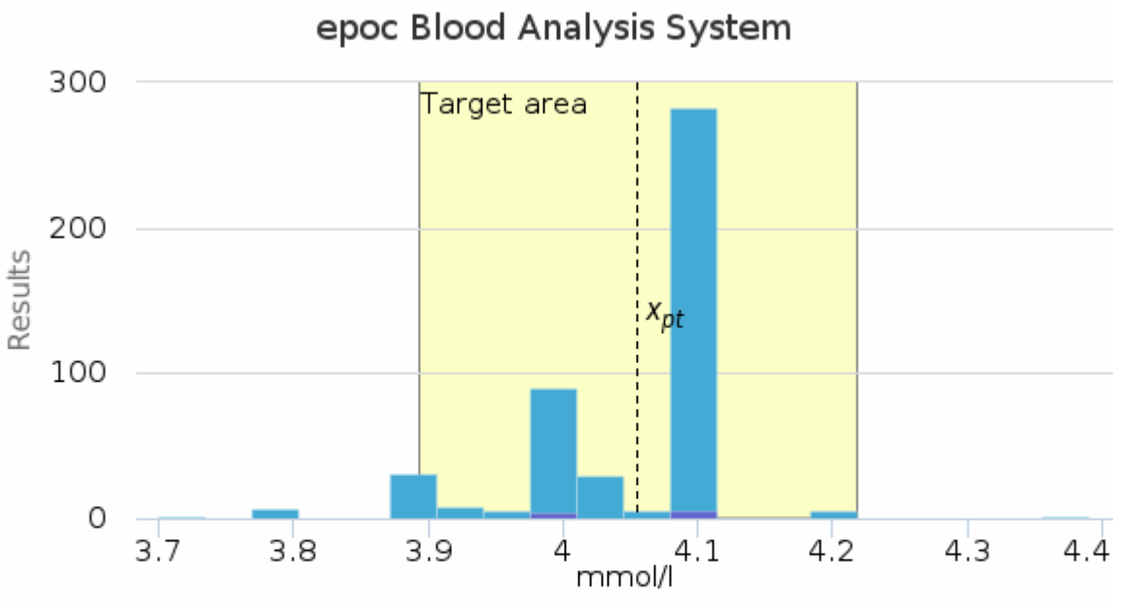


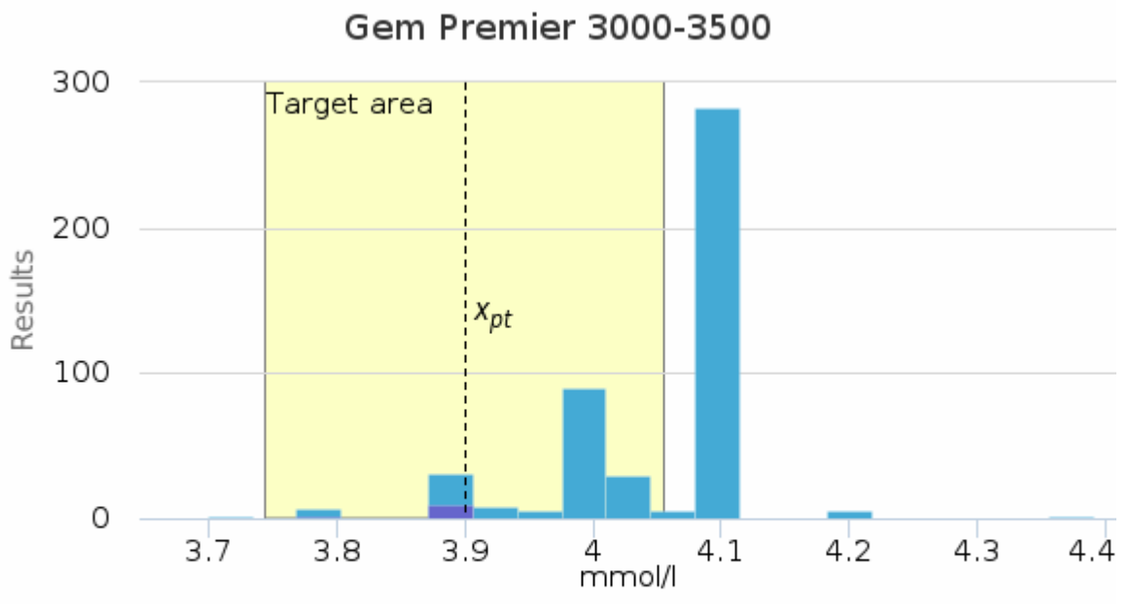


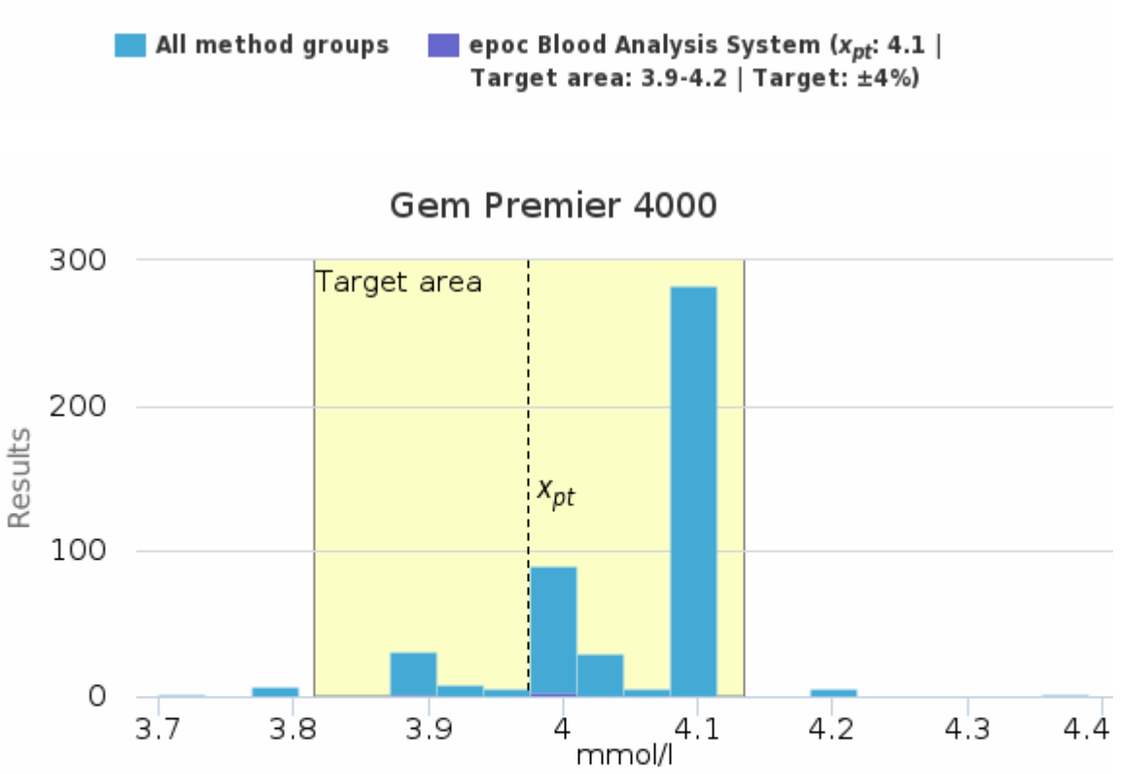


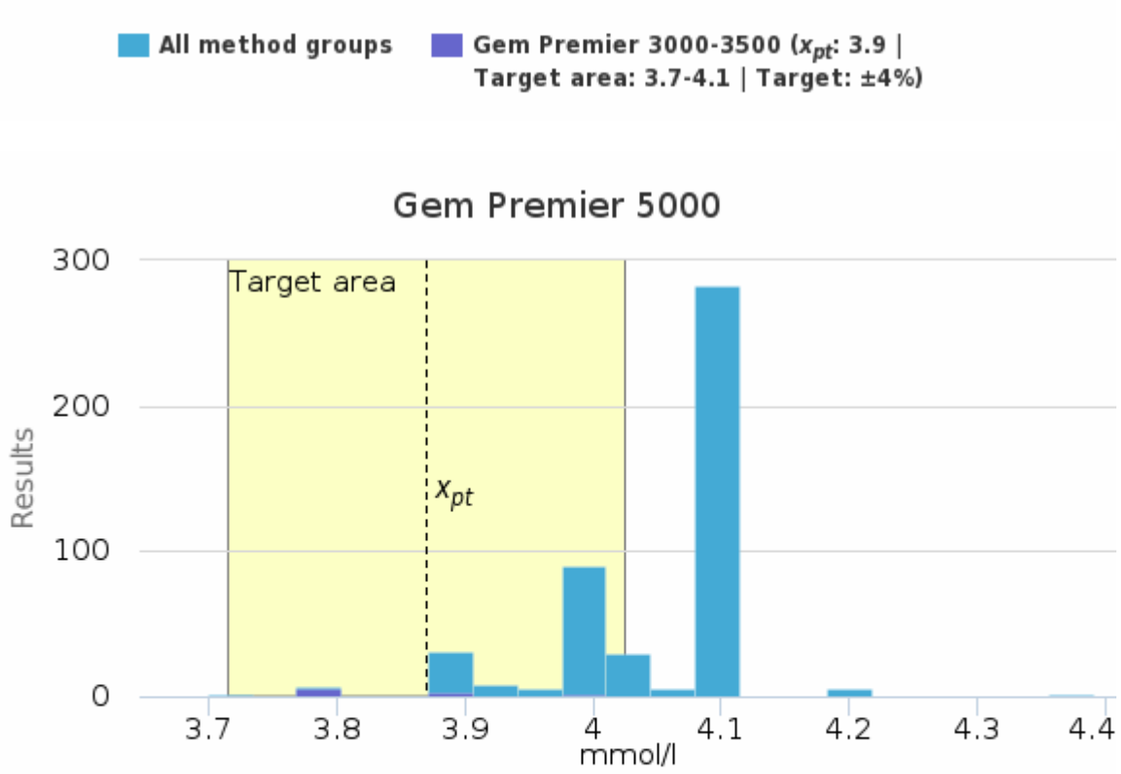


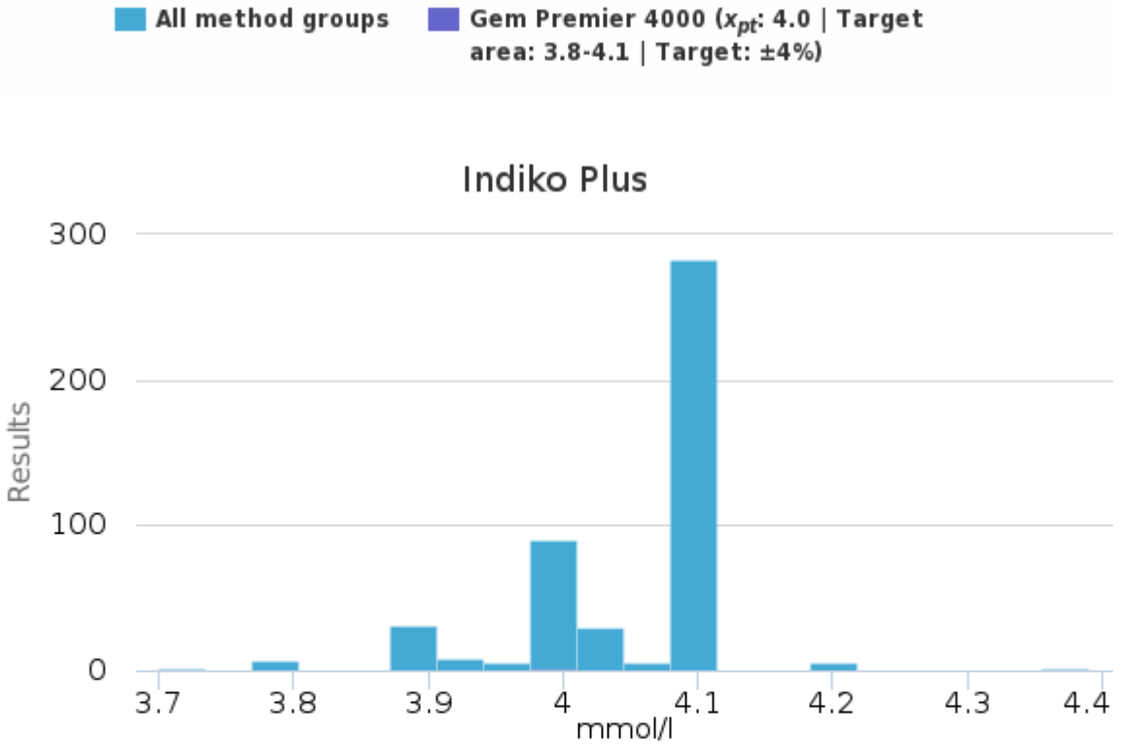
Acid-base status and electrolytes, February, 1-2023

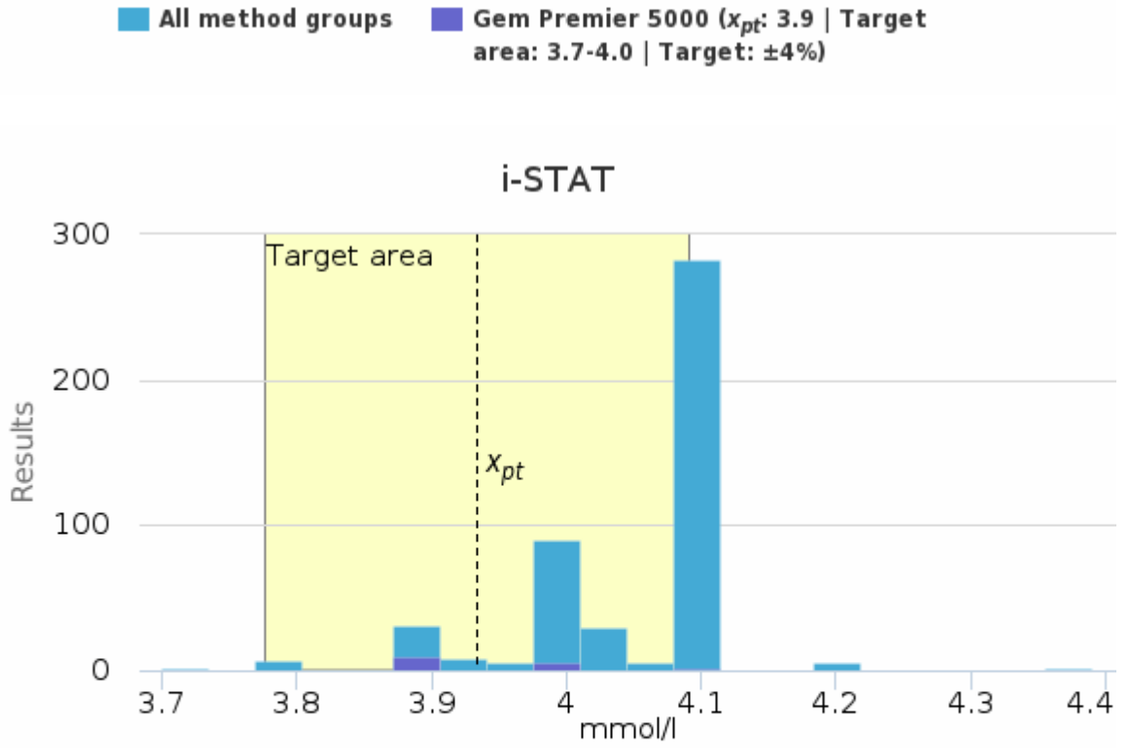


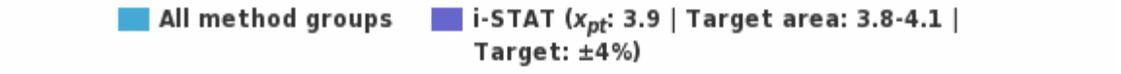




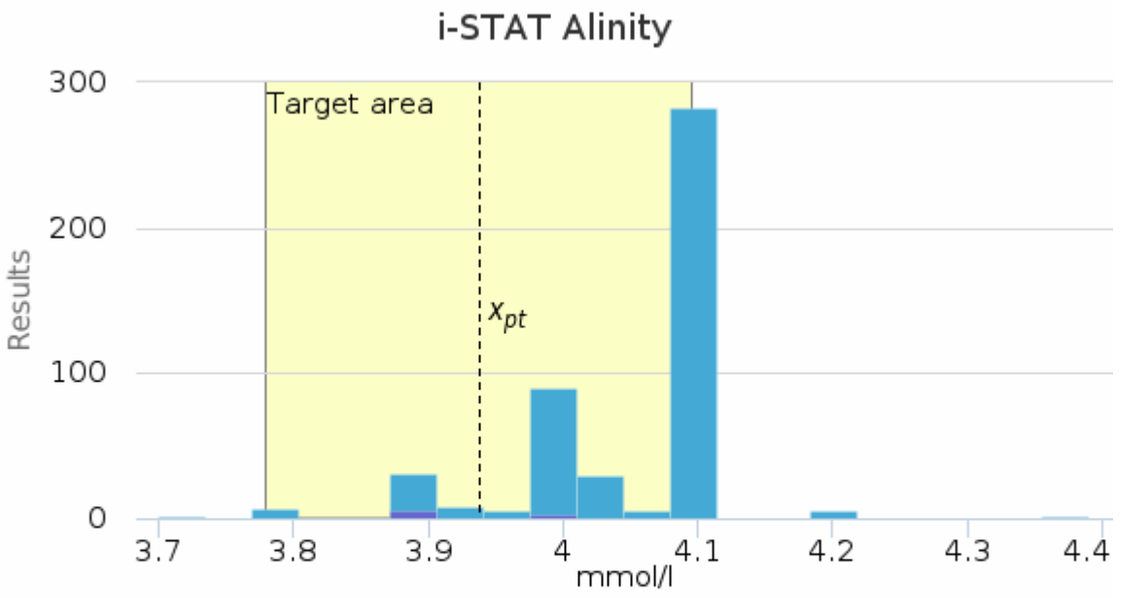


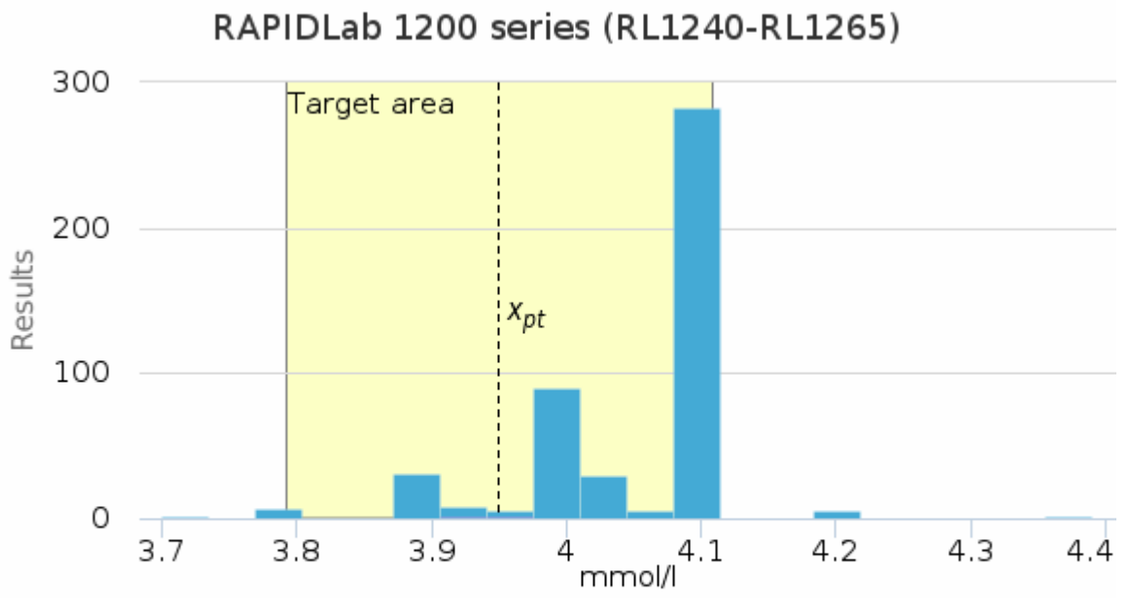


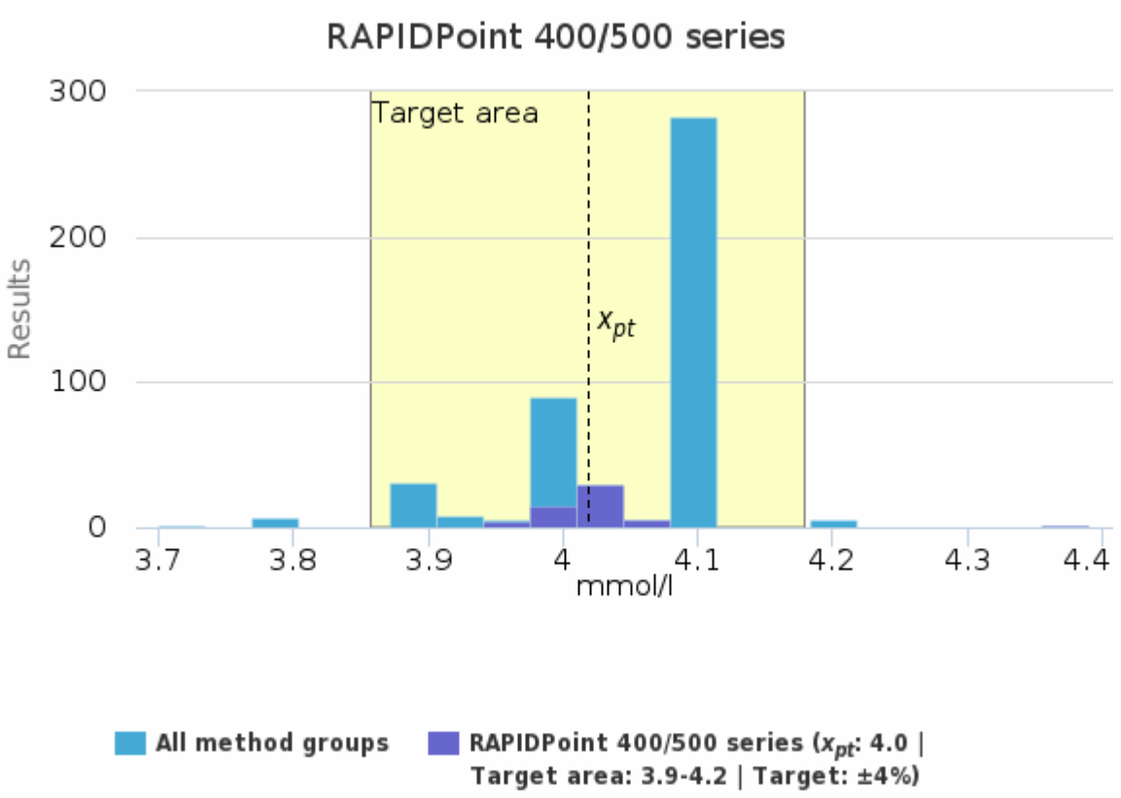




Acid-base status and electrolytes, February, 1-2023



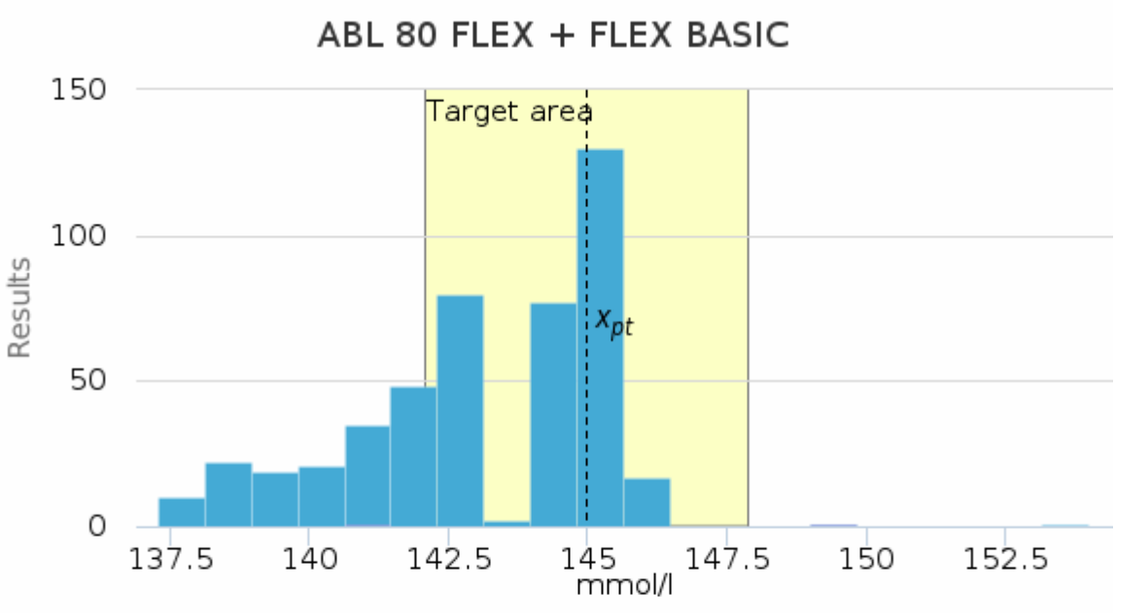


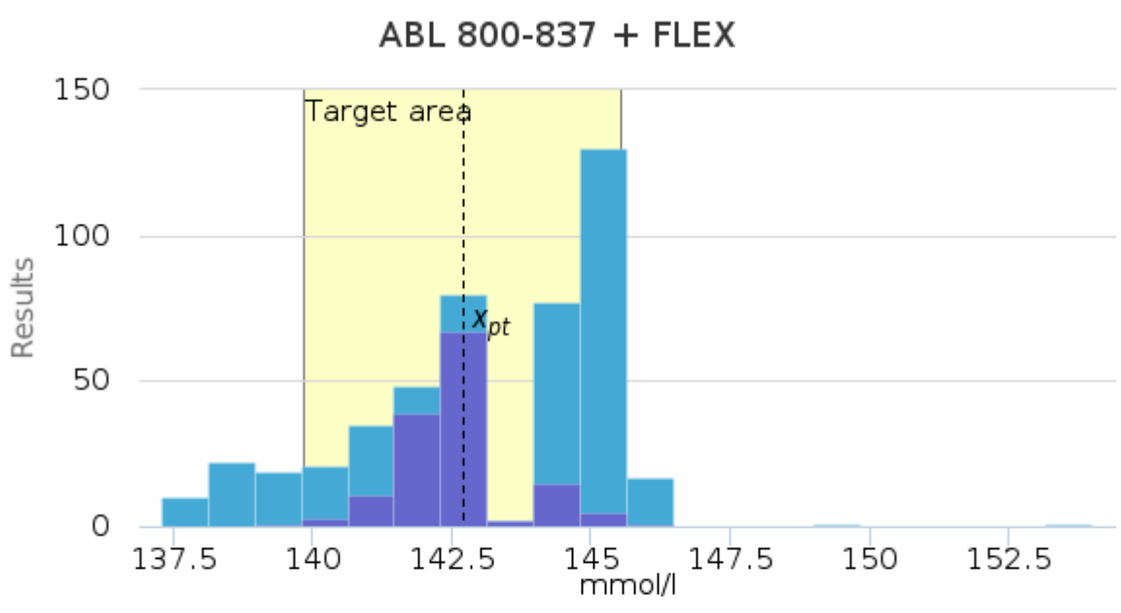


Sample S002 | Na, mmol/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	145	145	6	3.9	4	141	149	-	2
ABL 800-837 + FLEX	143	143	1	0.7	<1	140	146	1	144
ABL 90 FLEX + FLEX PLUS	145	145	<1	0.4	<1	143	146	2	196
Cobas b 221 / AVL 9180	141	141	1	0.7	<1	140	143	-	8
epoc Blood Analysis System	144	144	<1	0.5	<1	143	145	-	9
Gem Premier 3000-3500	141	141	2	1.5	<1	138	146	-	10
Gem Premier 4000	140	140	<1	0.4	<1	139	140	-	4
Gem Premier 5000	142	143	2	1.3	<1	139	144	-	10
Indiko Plus	-	-	-	-	-	140	140	-	1
i-STAT	142	141	<1	0.6	<1	141	143	1	14
i-STAT Alinity	141	141	<1	0.4	<1	141	142	-	8
RAPIDLab 1200 series (RL1240-RL1265)	139	139	2	1.2	1	138	140	-	2
RAPIDPoint 400/500 series	139	139	<1	0.6	<1	137	141	1	55
All	**143**	**143**	**2**	**1.5**	**<1**	**137**	**149**	**1**	**463**

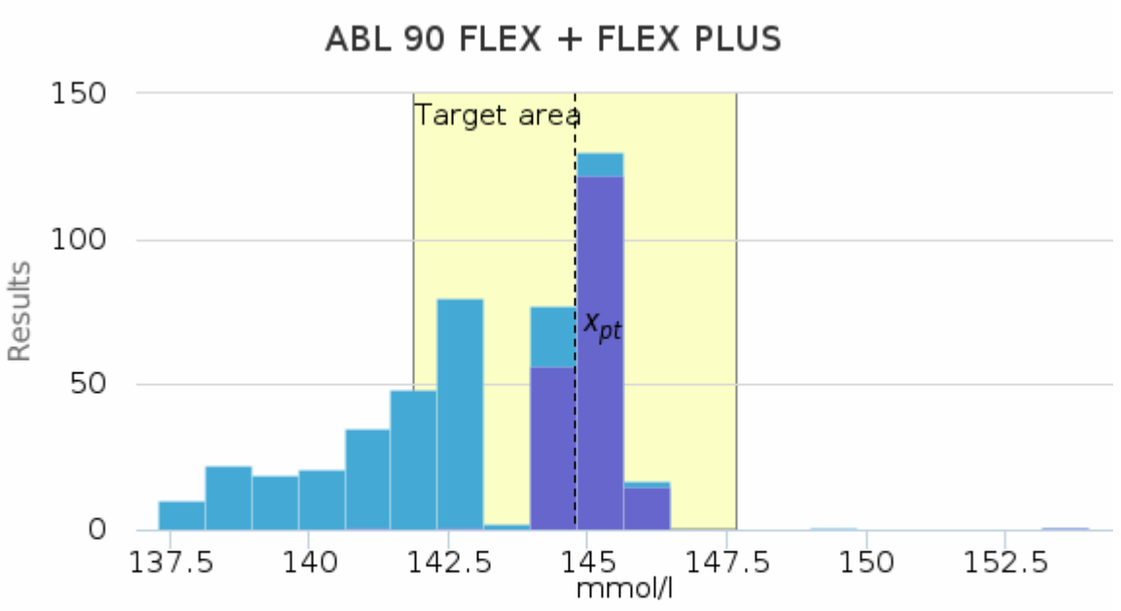
Sample S002 | Na, mmol/l| histogram summaries in LabScala

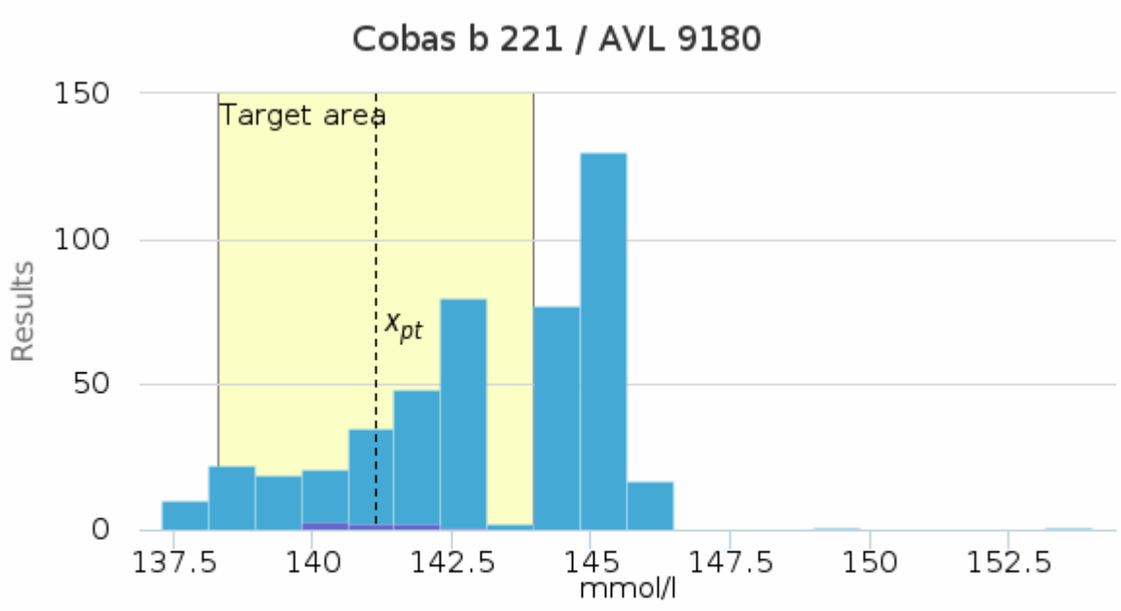




All method groups — ABL 80 FLEX + FLEX BASIC (x_{pt}: 145 | Target area: 142-148 | Target: ±2%)

All method groups — ABL 800-837 + FLEX (x_{pt}: 143 | Target area: 140-146 | Target: ±2%)

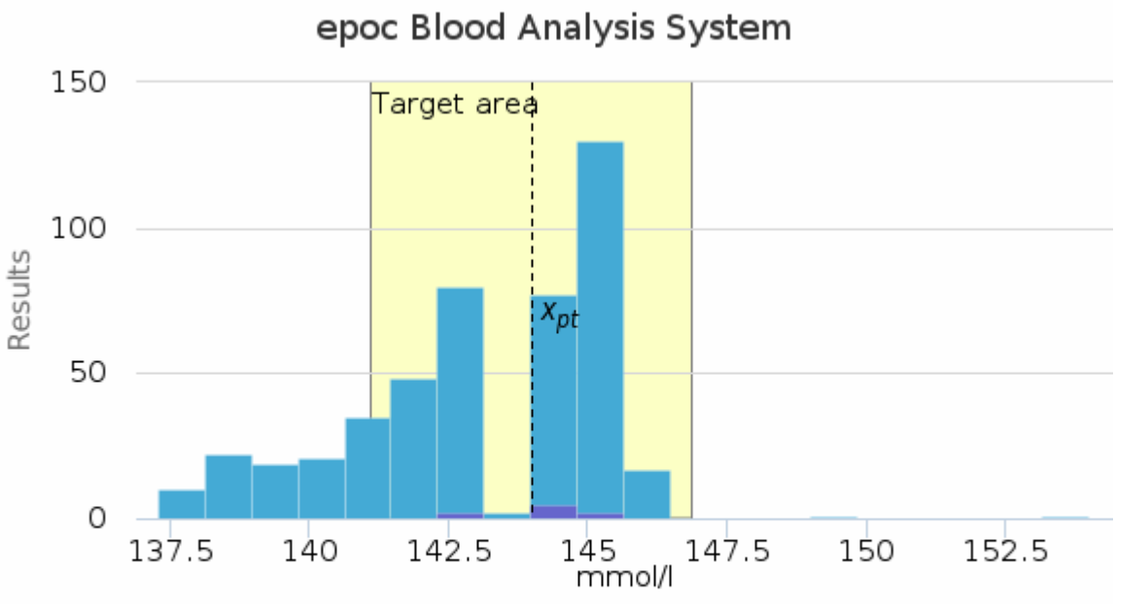


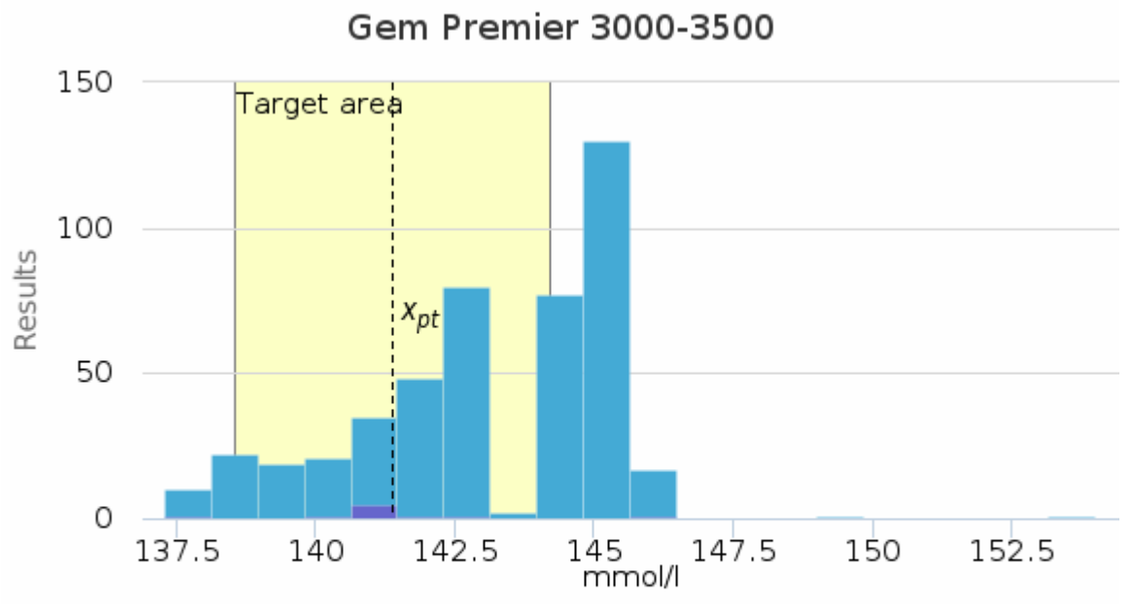


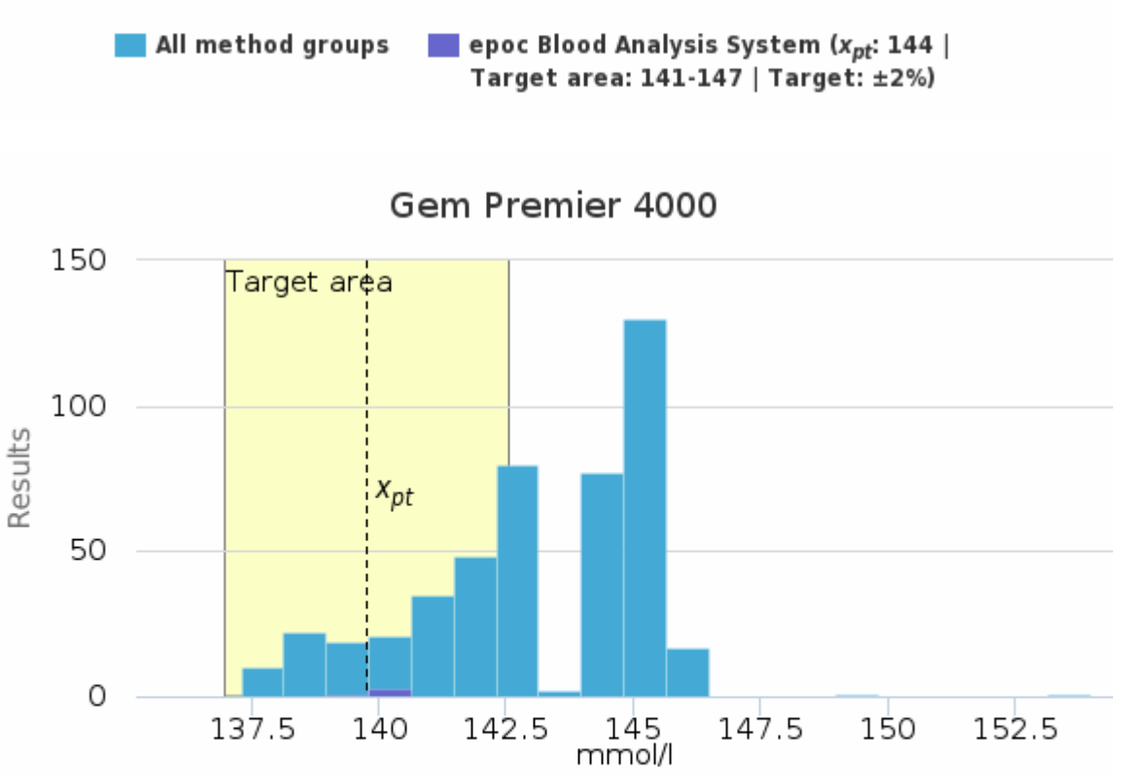
All method groups — ABL 90 FLEX + FLEX PLUS (x_{pt}: 145 | Target area: 142-148 | Target: ±2%)

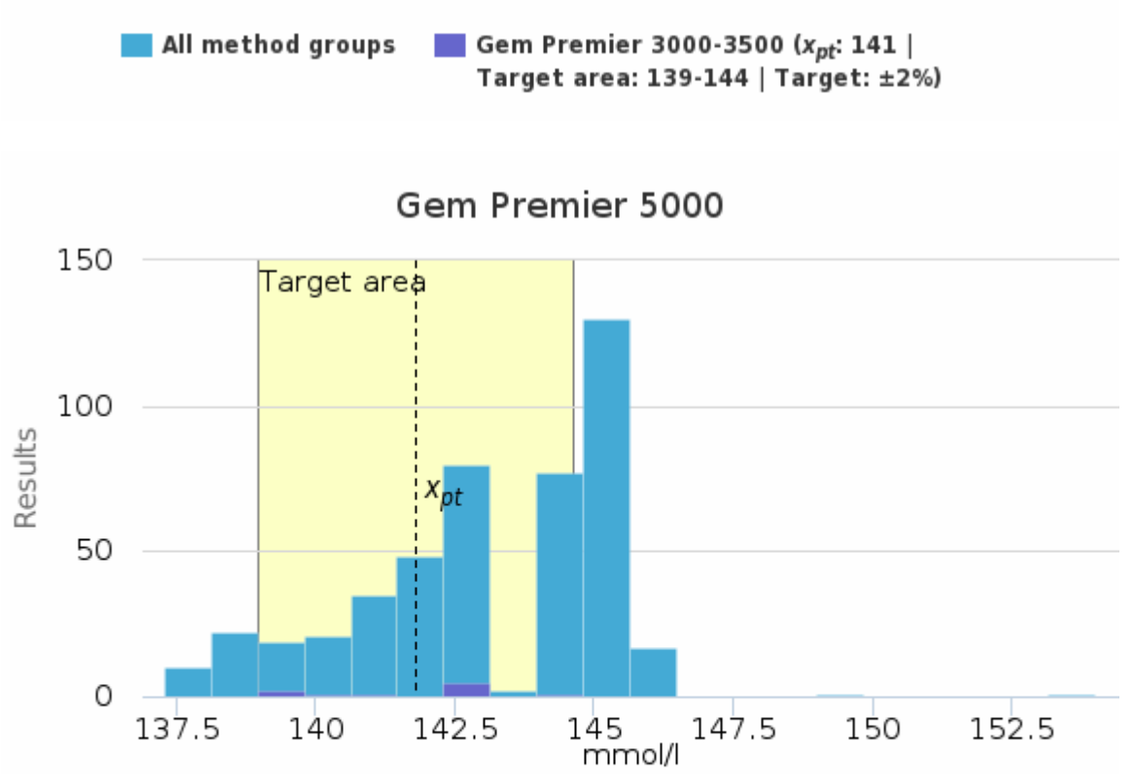
All method groups — Cobas b 221 / AVL 9180 (x_{pt}: 141 | Target area: 138-144 | Target: ±2%)

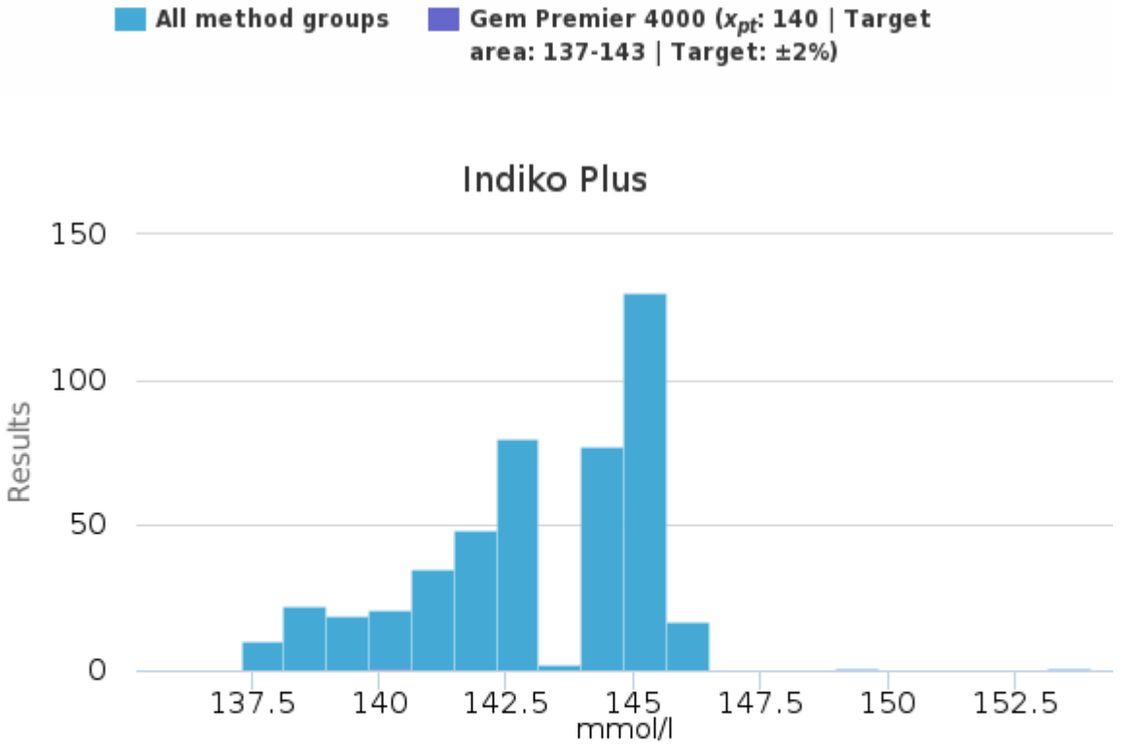
Acid-base status and electrolytes, February, 1-2023

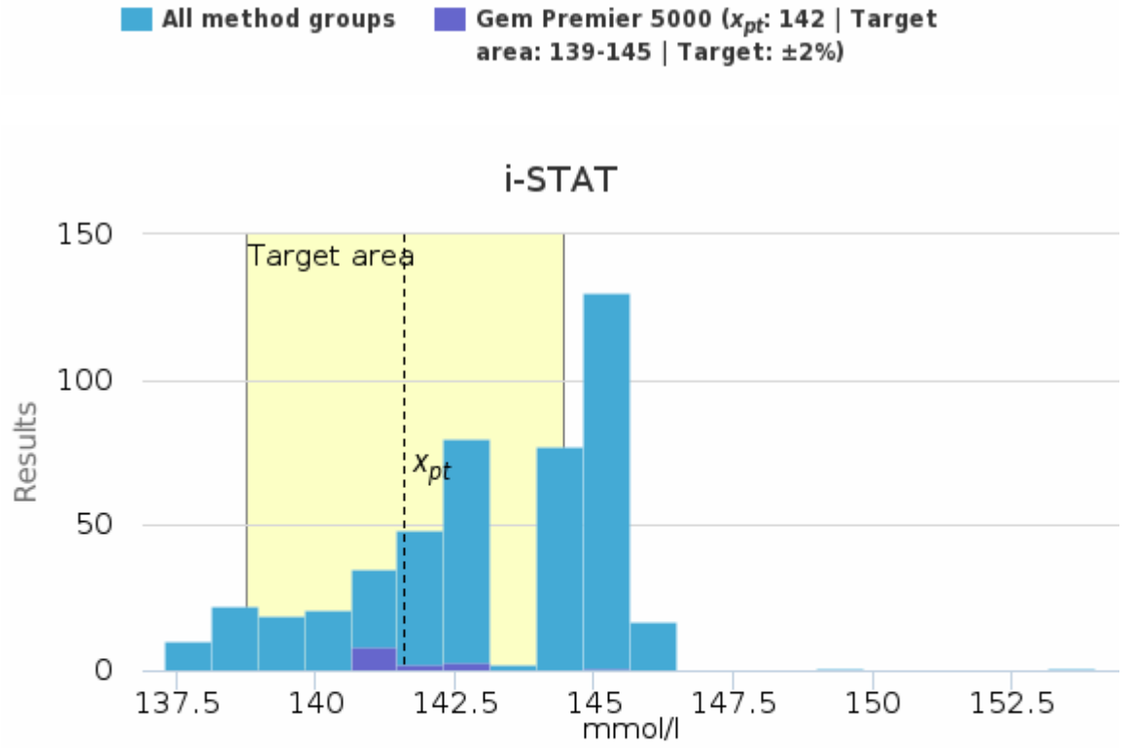




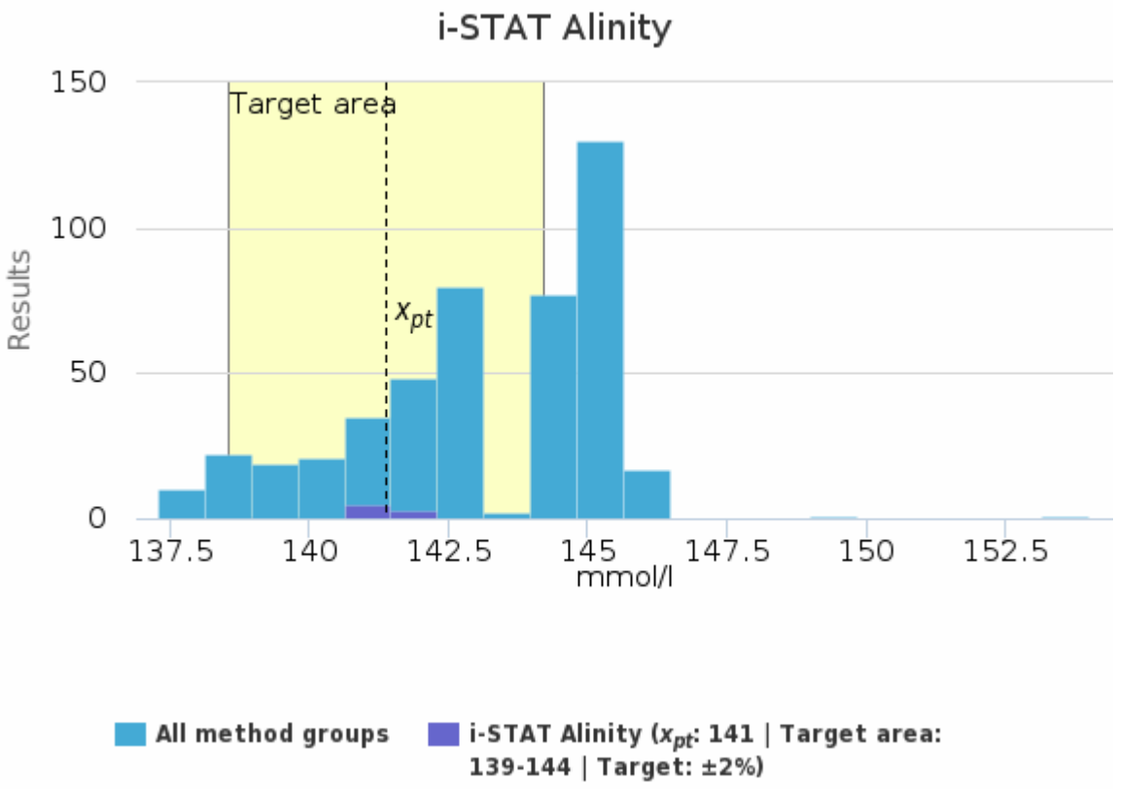


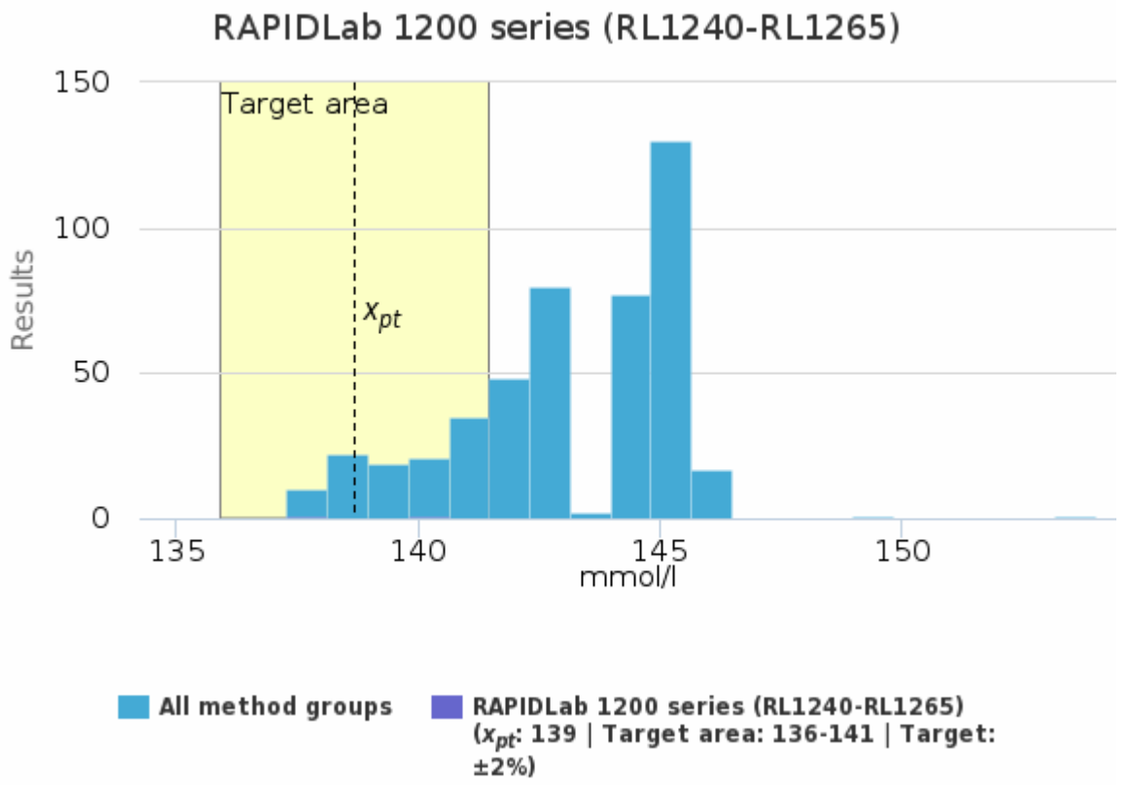


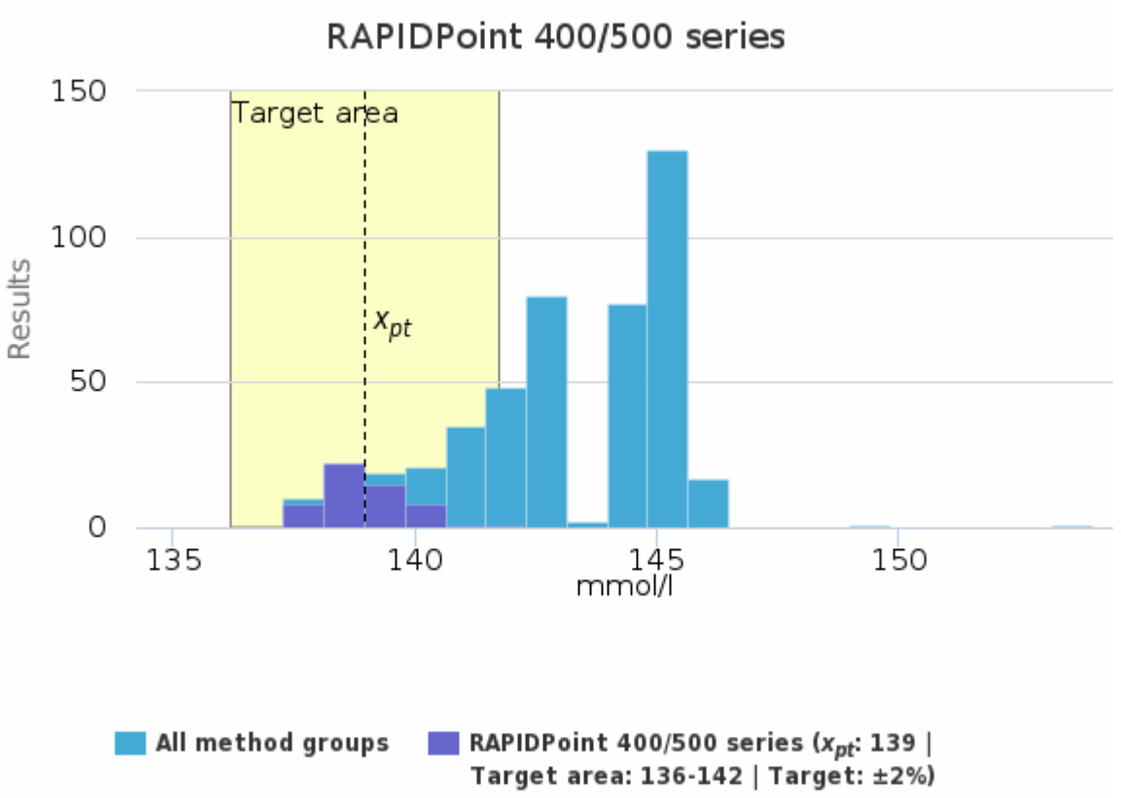




Acid-base status and electrolytes, February, 1-2023



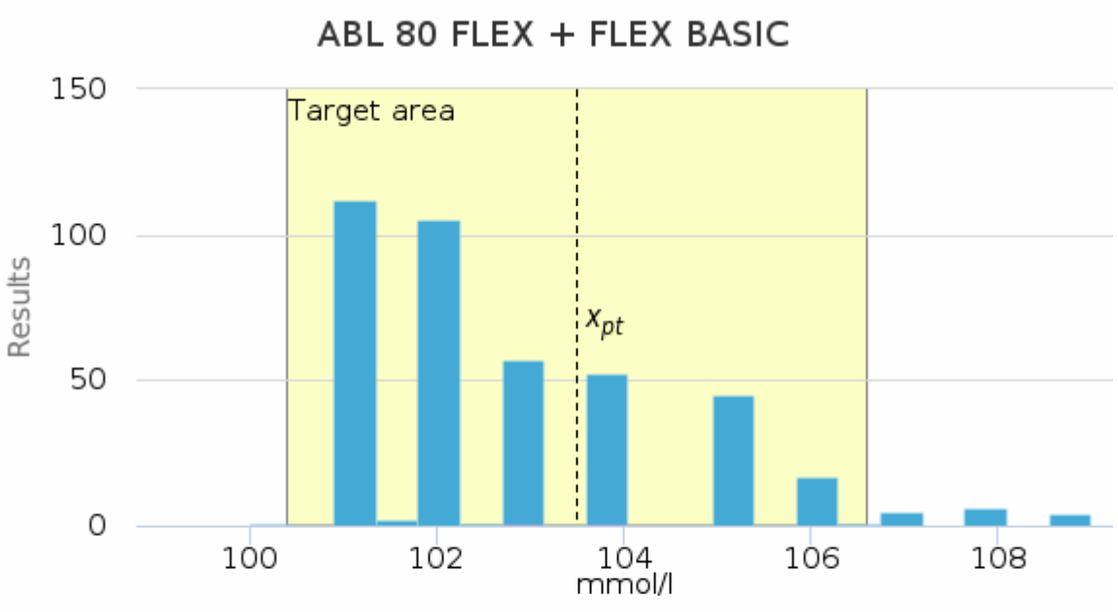


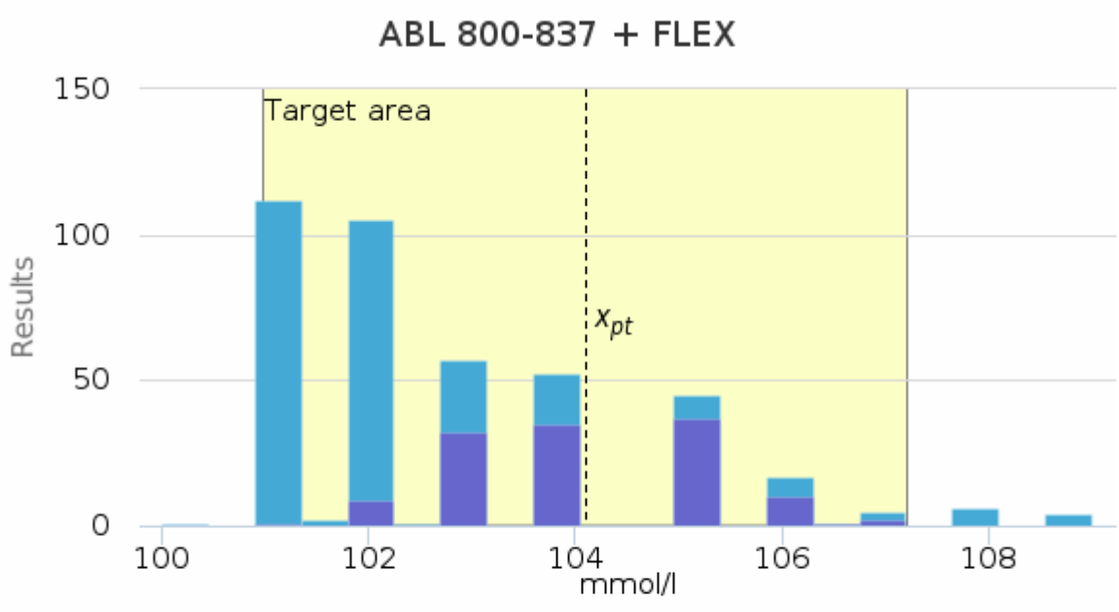


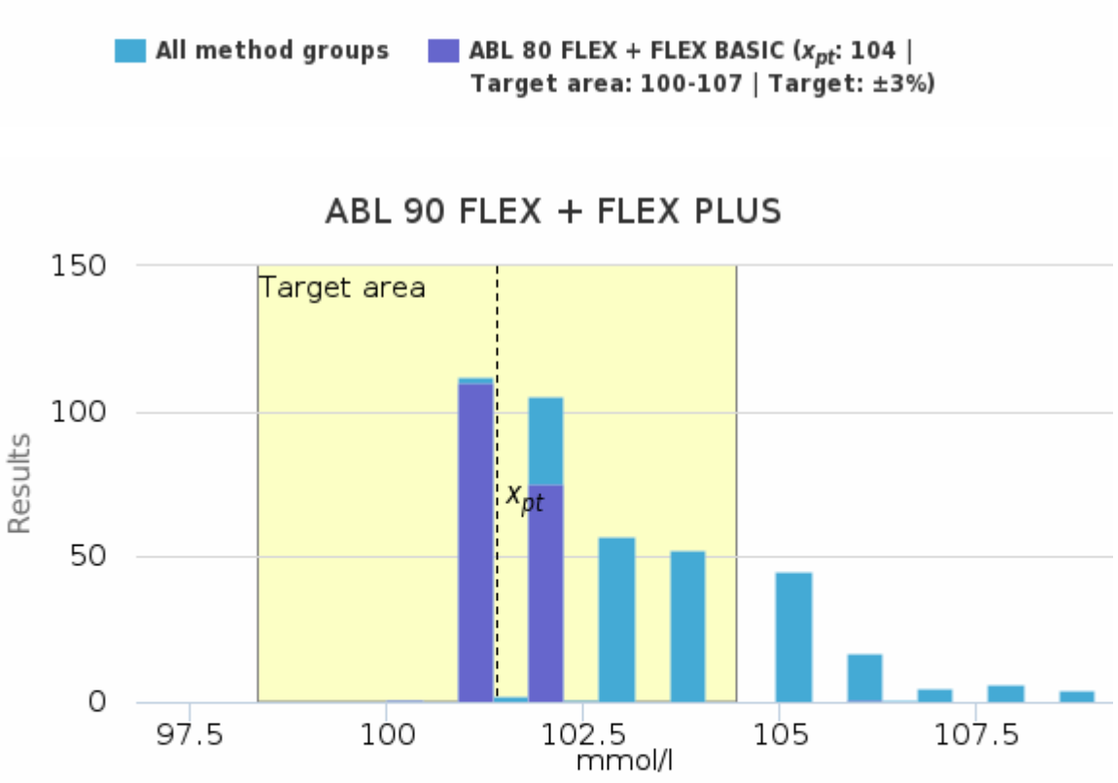
Sample S002 | Cl, mmol/l

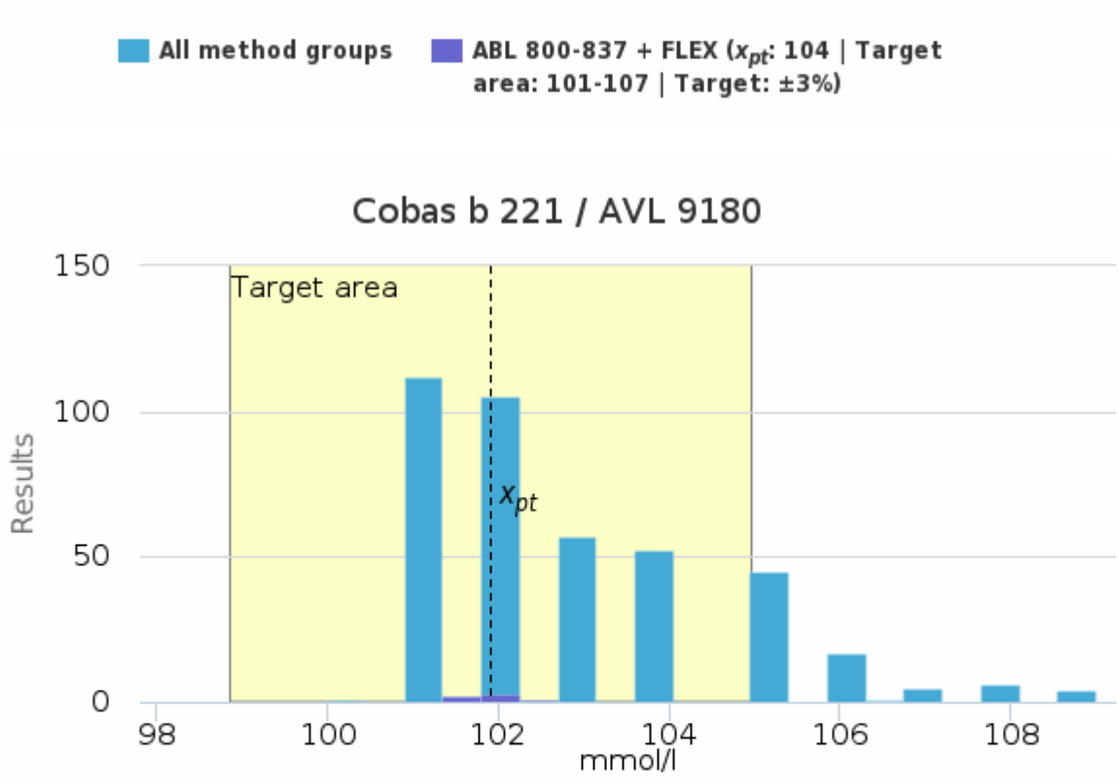
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	104	104	<1	0.7	<1	103	104	-	2
ABL 800-837 + FLEX	104	104	1	1.1	<1	101	107	-	127
ABL 90 FLEX + FLEX PLUS	101	101	<1	0.5	<1	100	102	1	187
Cobas b 221 / AVL 9180	102	102	<1	0.3	<1	101	102	-	6
epoc Blood Analysis System	108	108	<1	0.6	<1	107	109	-	8
Gem Premier 4000	108	108	<1	0.9	<1	107	109	-	4
Gem Premier 5000	105	105	2	1.4	<1	104	109	-	9
Indiko Plus	-	-	-	-	-	104	104	-	1
i-STAT	105	105	1	1.2	<1	102	106	-	8
i-STAT Alinity	-	-	-	-	-	106	106	-	1
RAPIDLab 1200 series (RL1240-RL1265)	104	104	<1	<0.1	<1	104	104	-	2
RAPIDPoint 400/500 series	103	103	<1	0.7	<1	101	104	-	53
All	**103**	**102**	**2**	**1.5**	**<1**	**100**	**107**	**10**	**408**

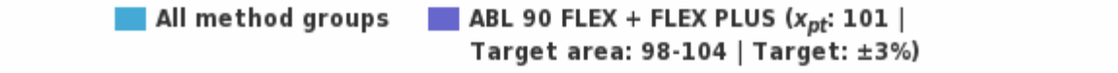
Sample S002 | Cl, mmol/l| histogram summaries in LabScala

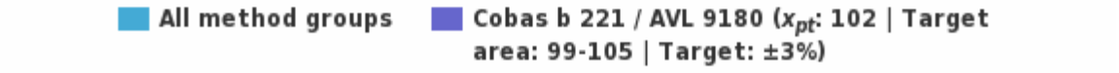




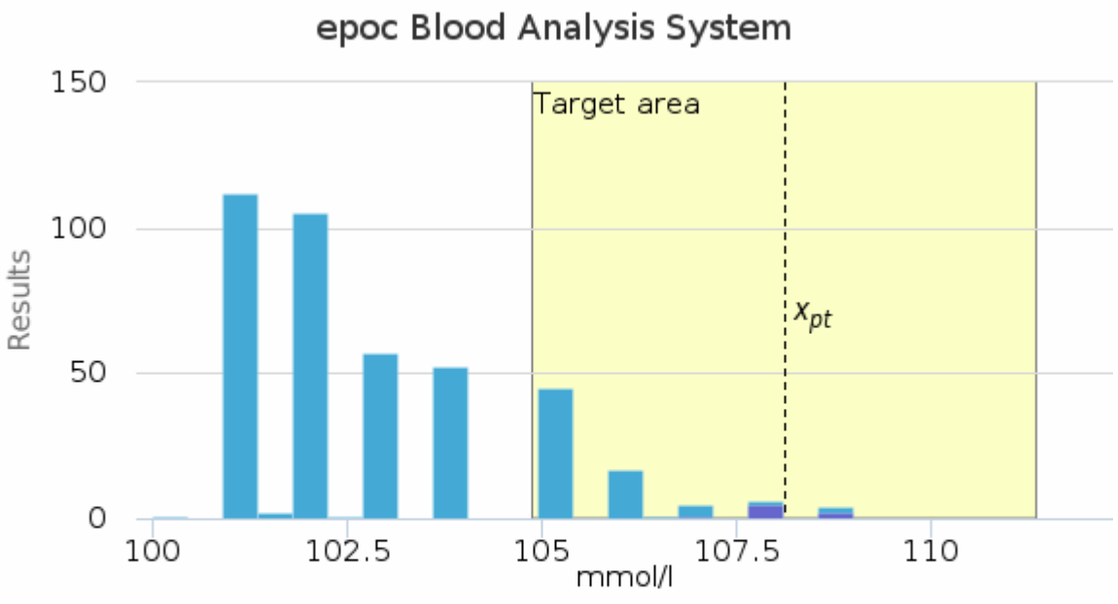


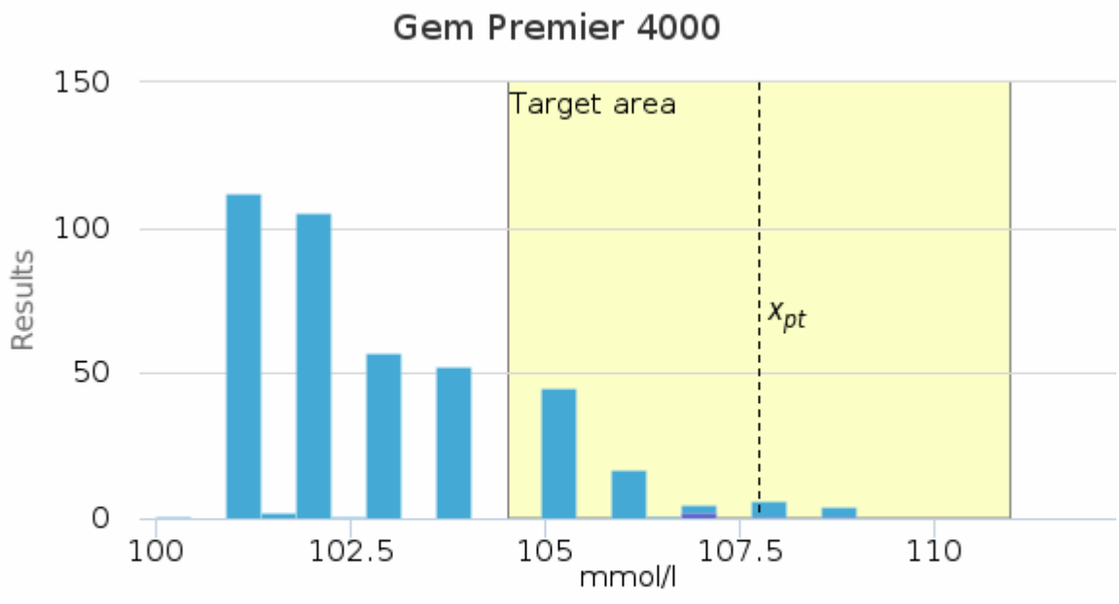


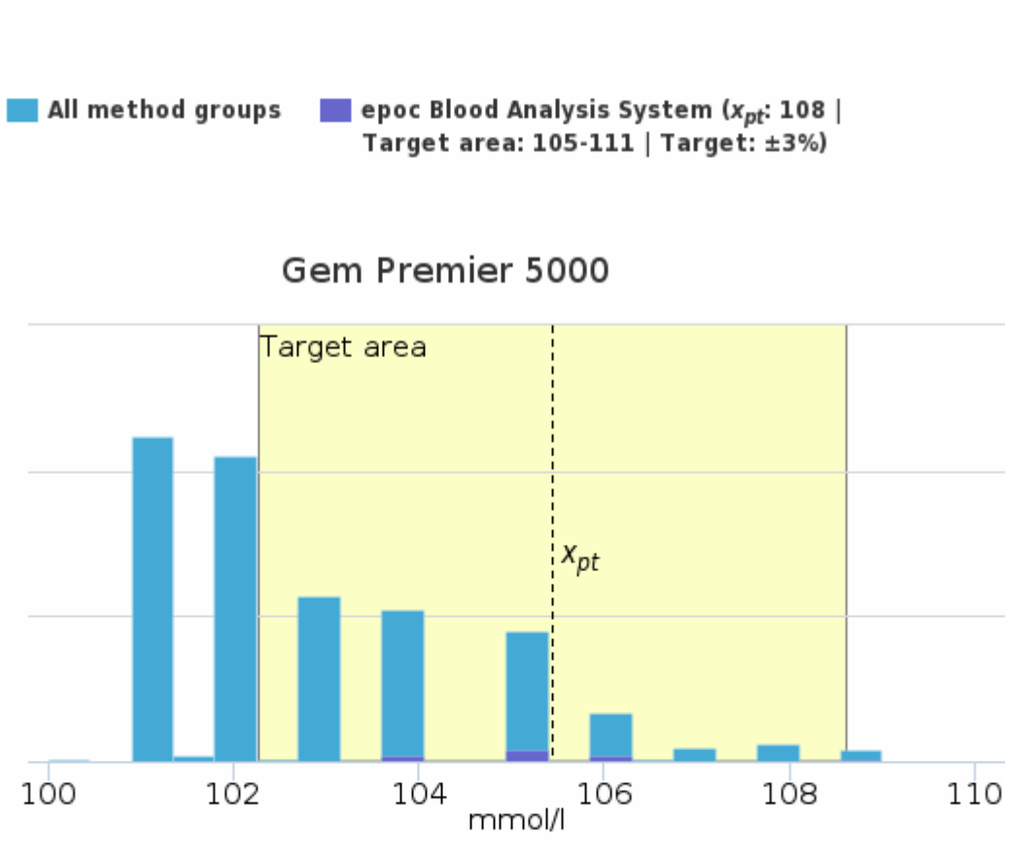


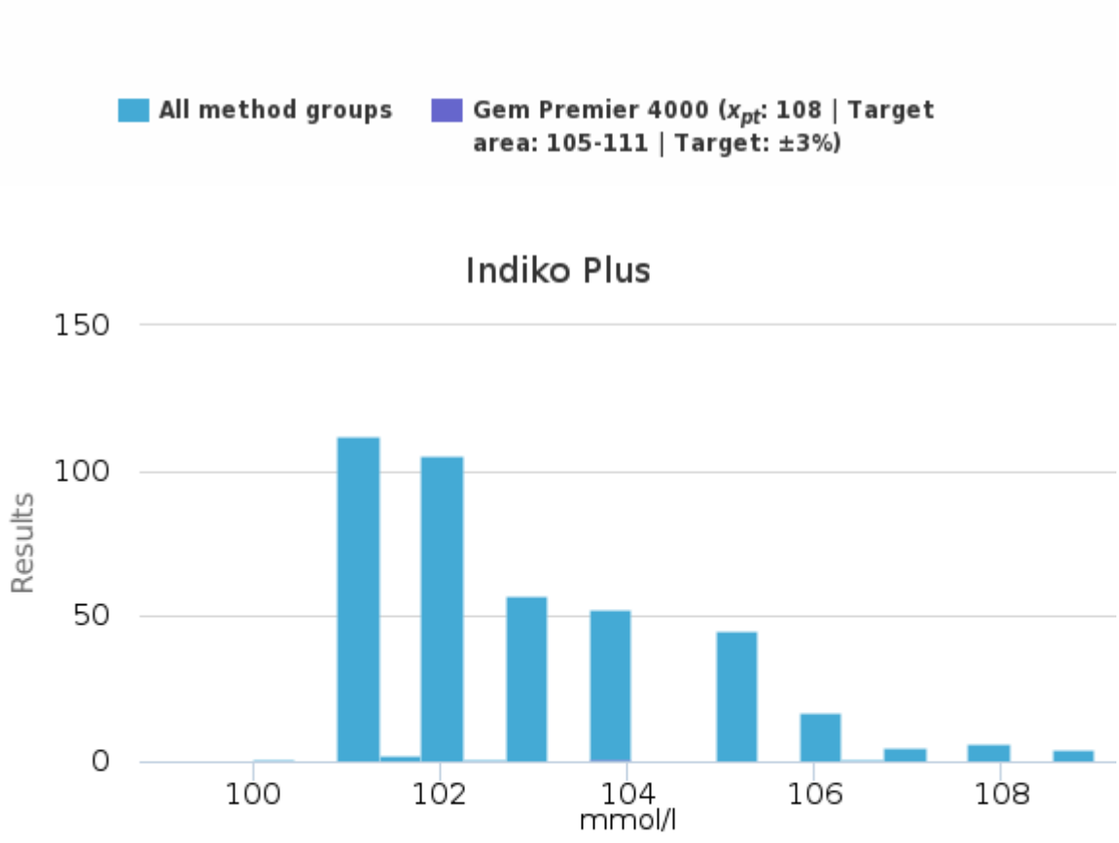


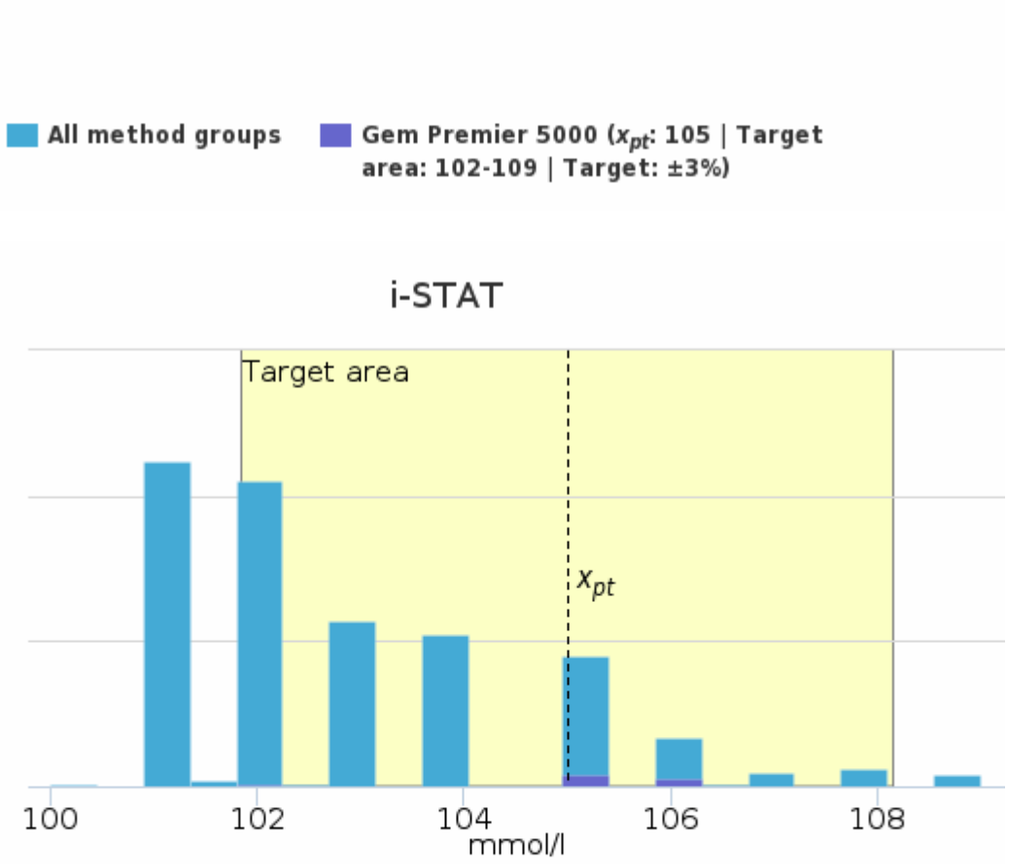
Acid-base status and electrolytes, February, 1-2023

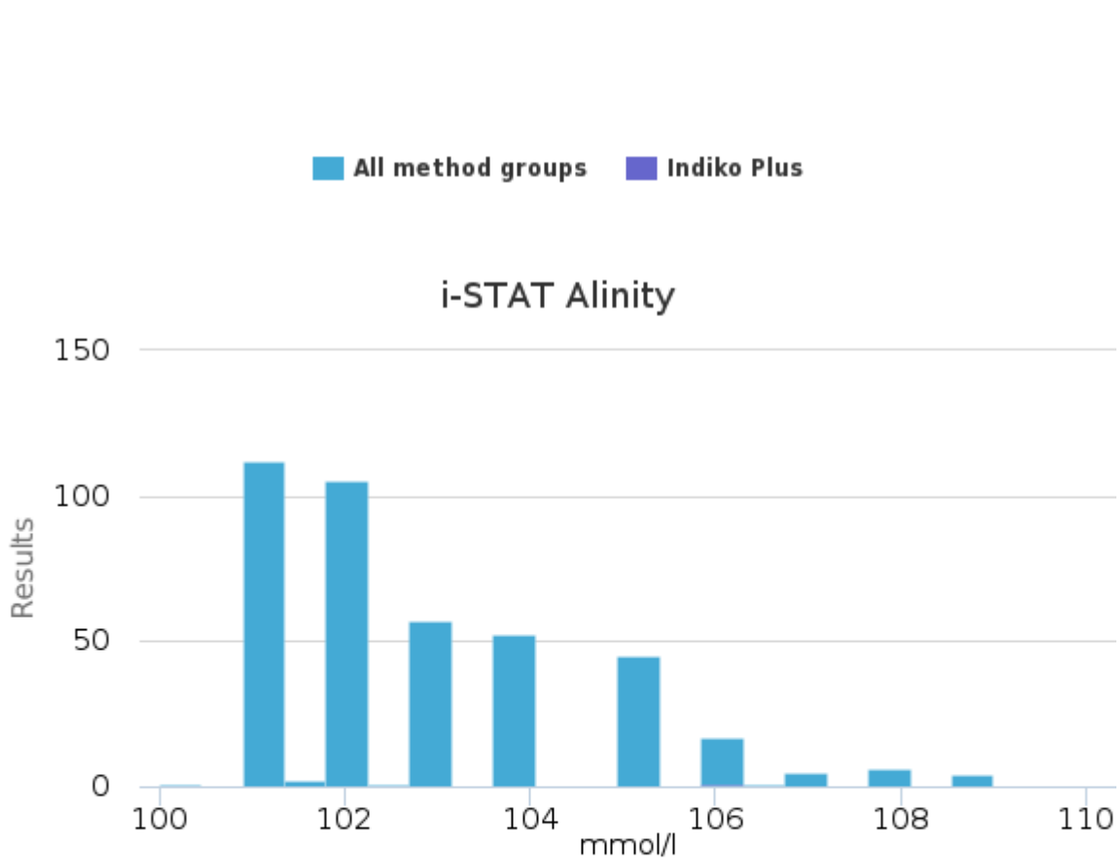


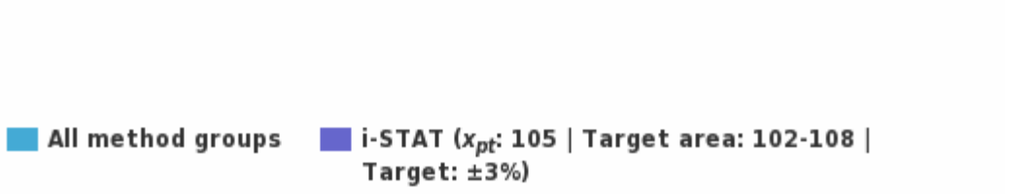




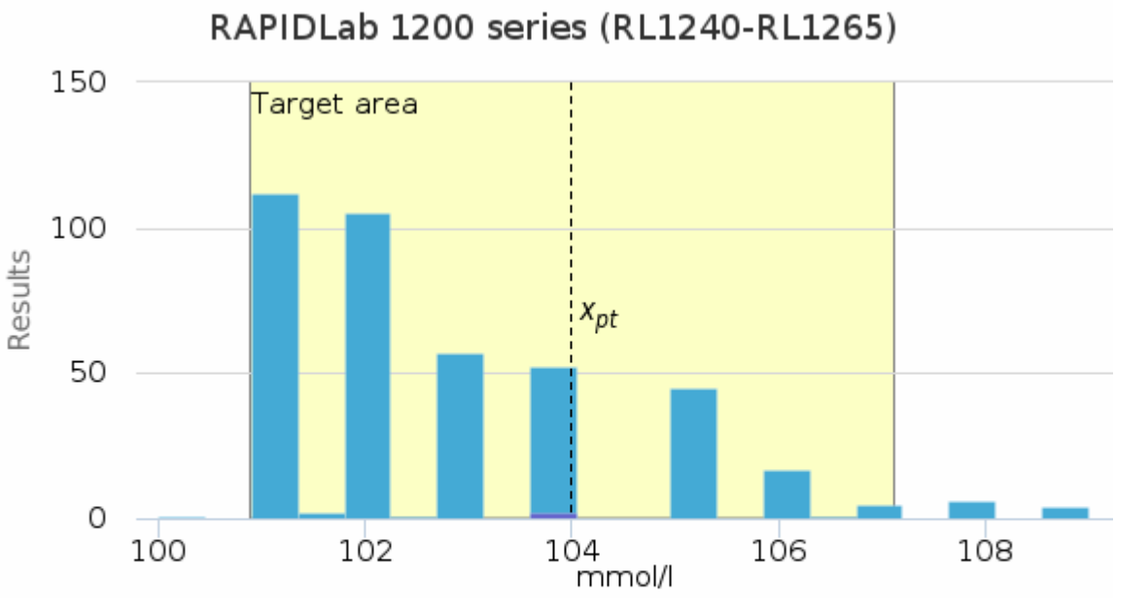


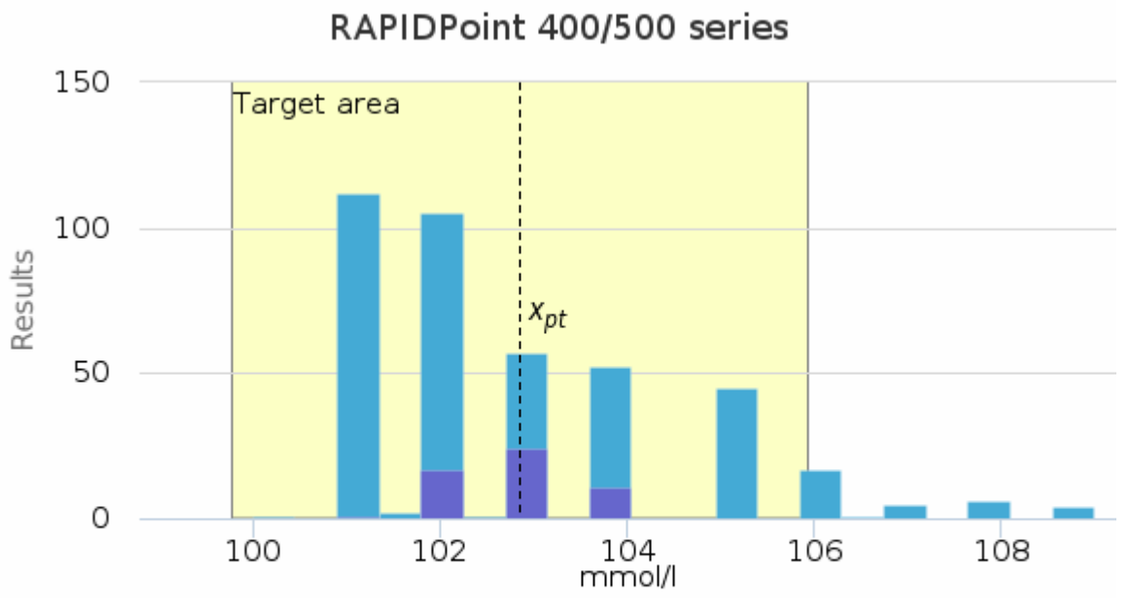






Acid-base status and electrolytes, February, 1-2023

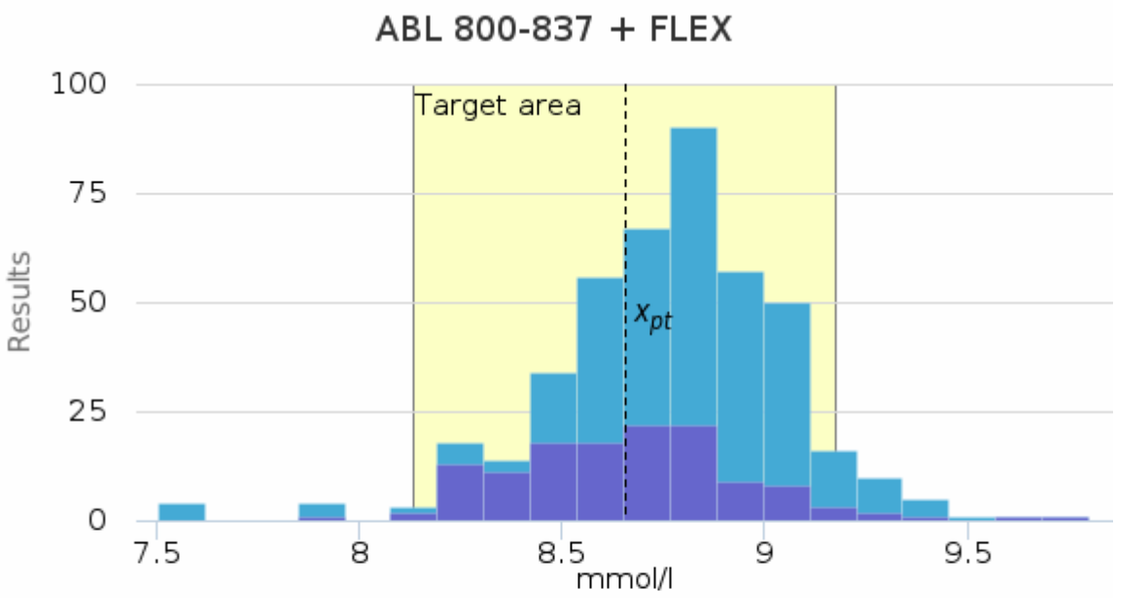


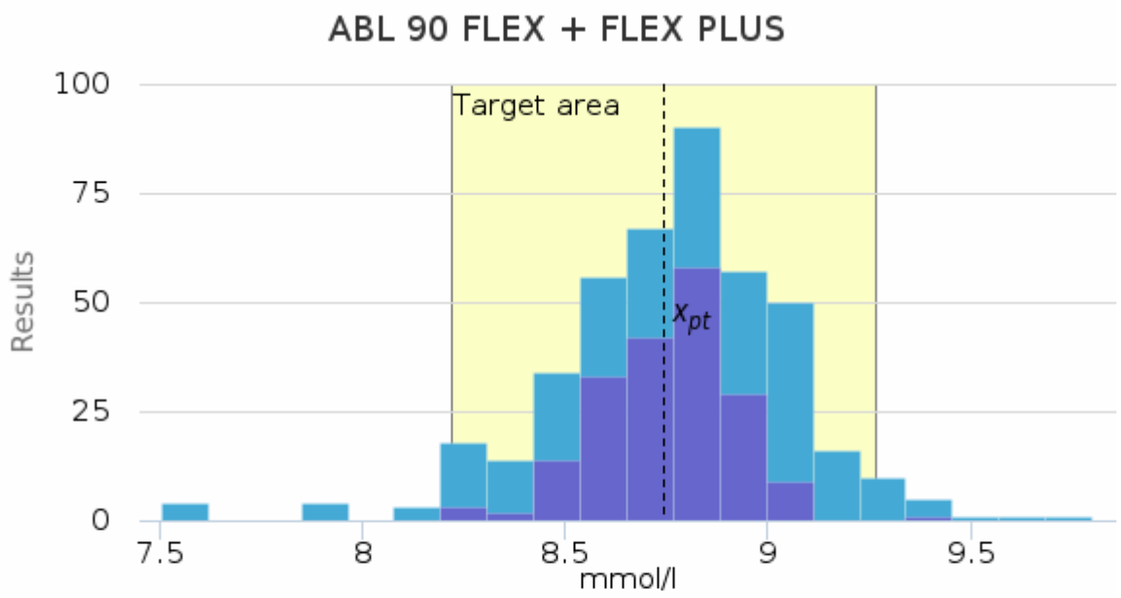


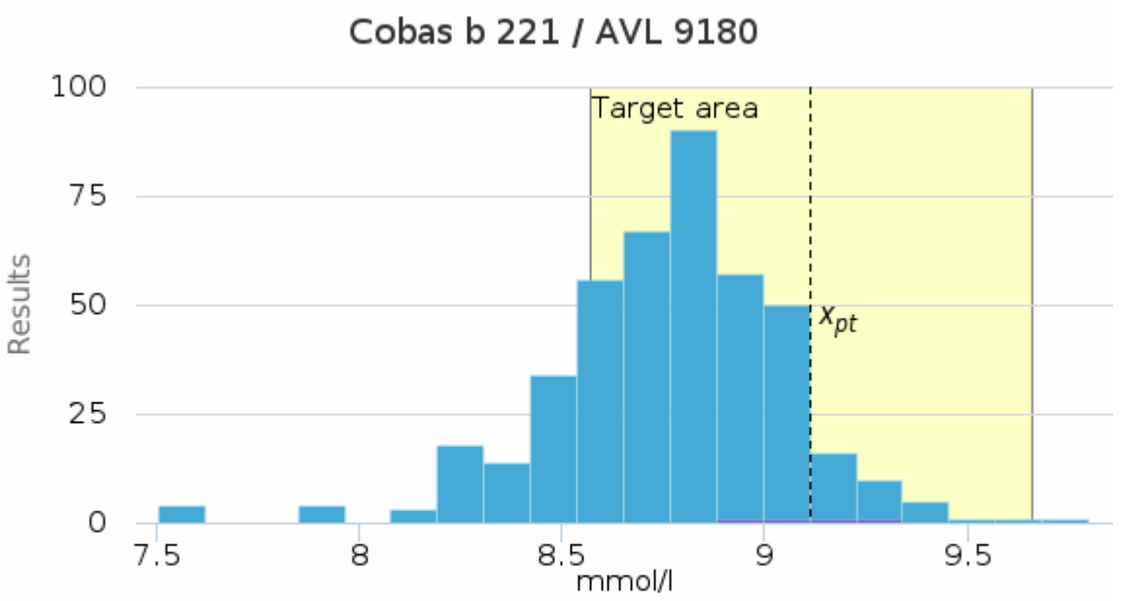
Sample S002 | Glucose, mmol/l

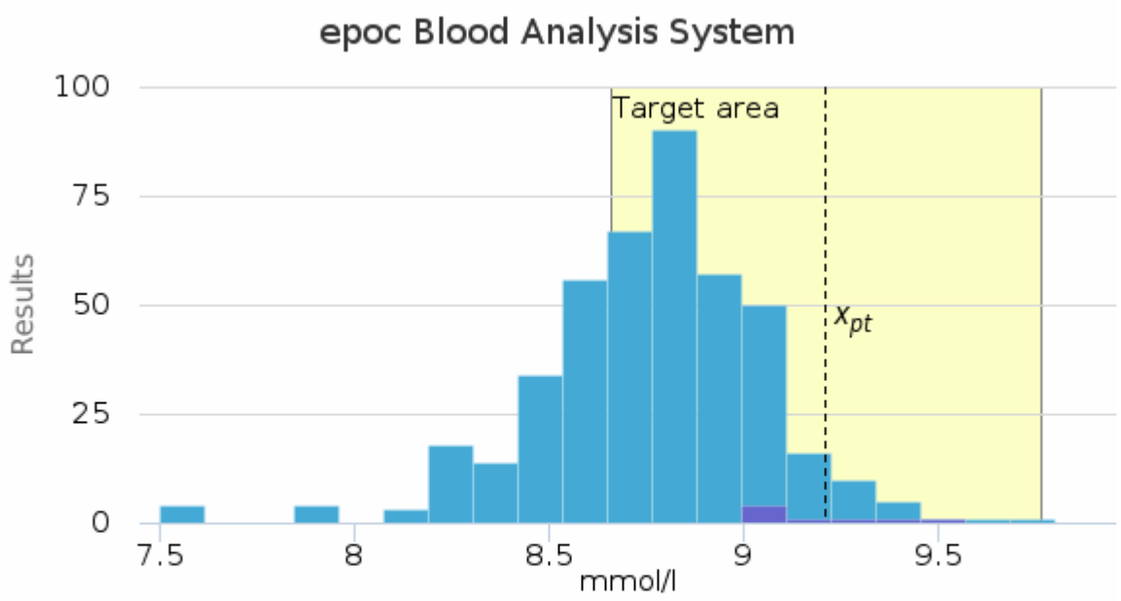
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	8.7	8.7	0.3	3.0	<0.1	7.9	9.4	2	132
ABL 90 FLEX + FLEX PLUS	8.7	8.8	0.1	1.6	<0.1	8.4	9.1	4	191
Cobas b 221 / AVL 9180	9.1	9.1	0.2	2.0	<0.1	8.9	9.3	-	4
epoc Blood Analysis System	9.2	9.2	0.2	1.9	<0.1	9.0	9.5	-	8
Gem Premier 3000-3500	8.0	7.9	0.4	4.5	0.1	7.6	8.6	-	9
Gem Premier 4000	8.9	8.8	0.3	3.3	0.1	8.7	9.4	-	4
Gem Premier 5000	8.4	8.6	0.4	4.7	0.1	7.5	9.0	-	10
i-STAT	8.9	8.9	<0.1	1.1	<0.1	8.8	9.1	-	12
i-STAT Alinity	9.0	8.9	<0.1	0.9	<0.1	8.9	9.1	-	6
RAPIDPoint 400/500 series	9.1	9.1	0.2	1.8	<0.1	8.7	9.4	-	55
All	**8.8**	**8.8**	**0.3**	**2.9**	**<0.1**	**7.9**	**9.5**	**8**	**431**

Sample S002 | Glucose, mmol/l| histogram summaries in LabScala

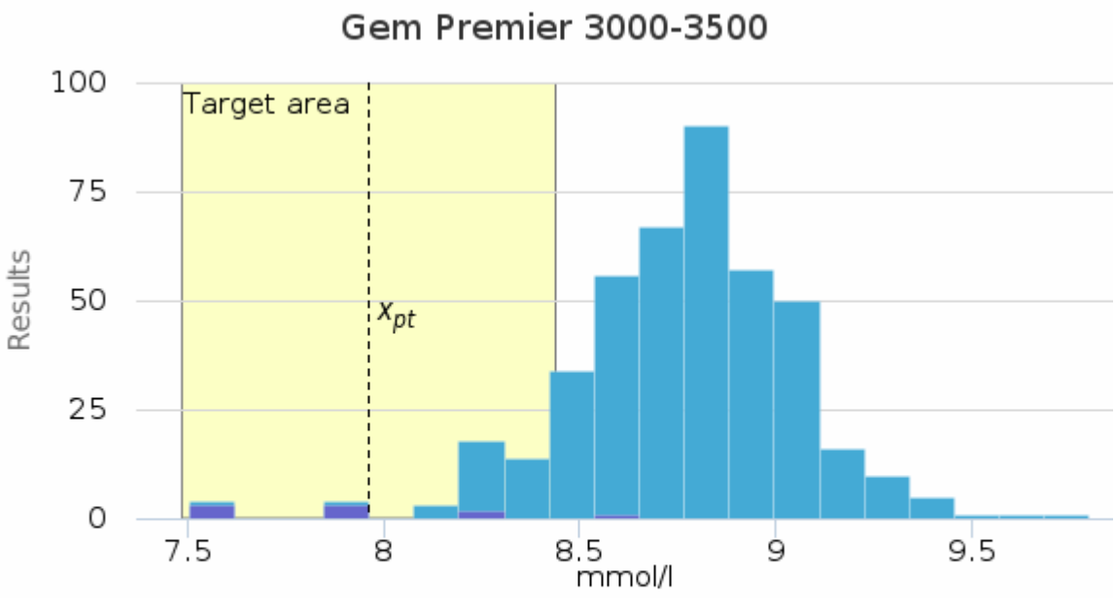


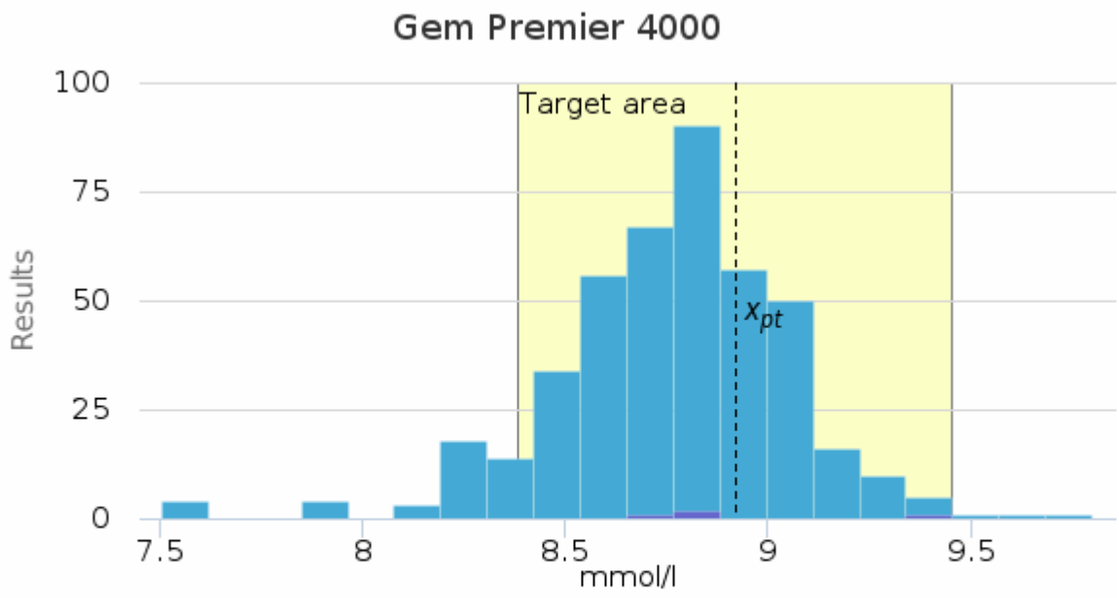






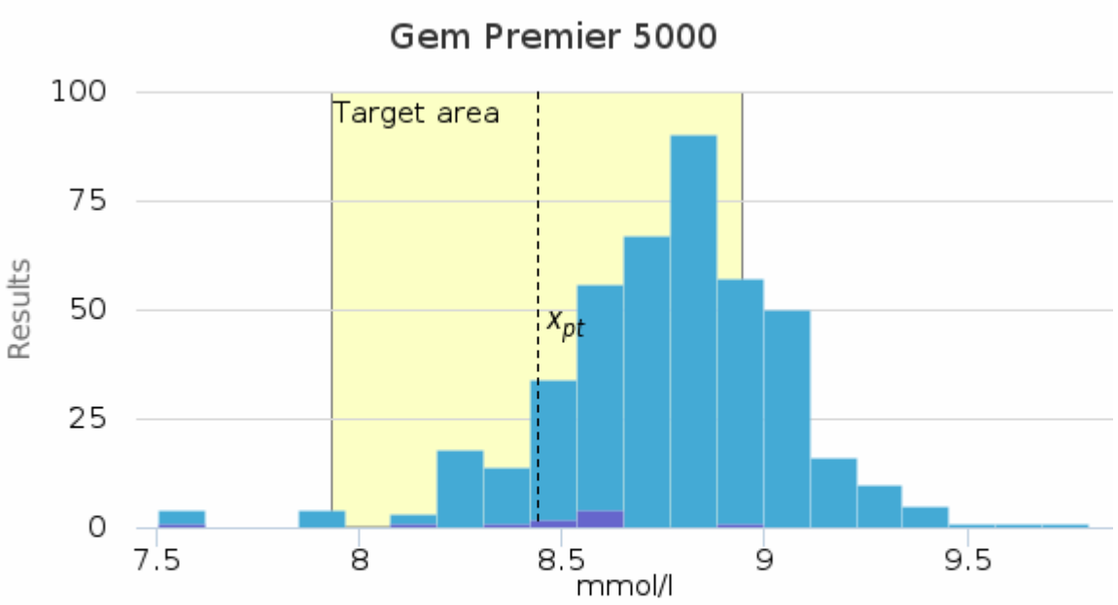
Acid-base status and electrolytes, February, 1-2023

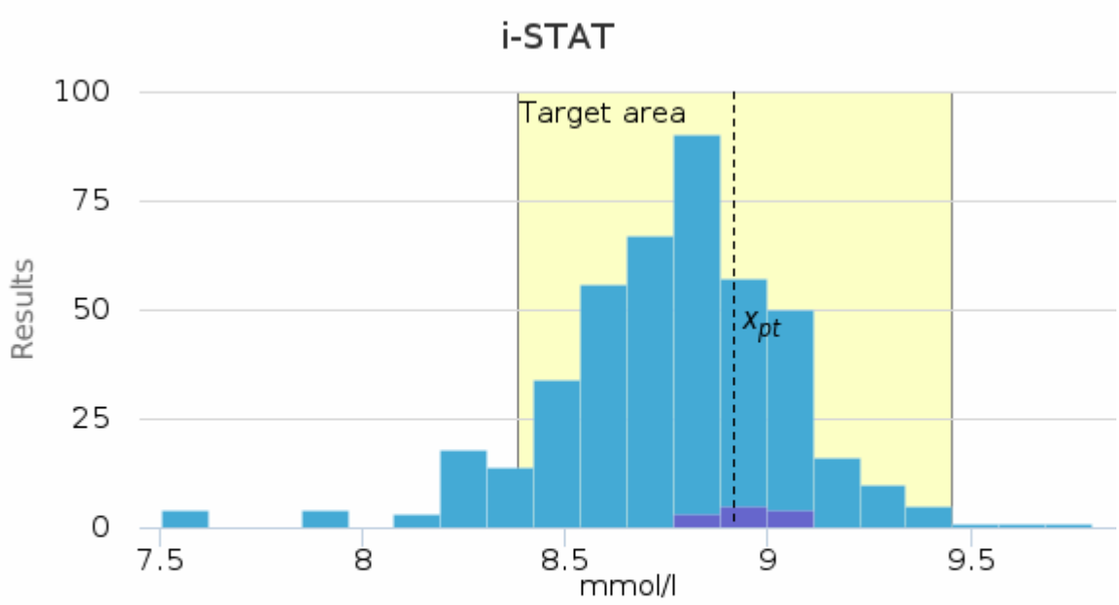




All method groups | Gem Premier 3000-3500 (x_{pt}: 8.0 | Target area: 7.5-8.4 | Target: ±6%)

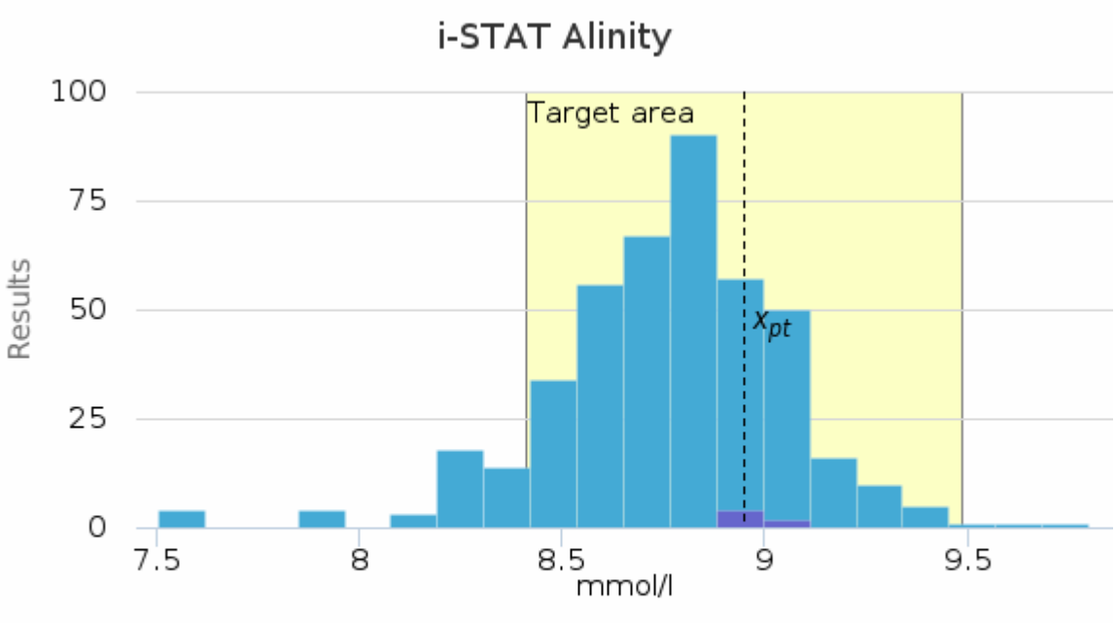
All method groups | Gem Premier 4000 (x_{pt}: 8.9 | Target area: 8.4-9.5 | Target: ±6%)

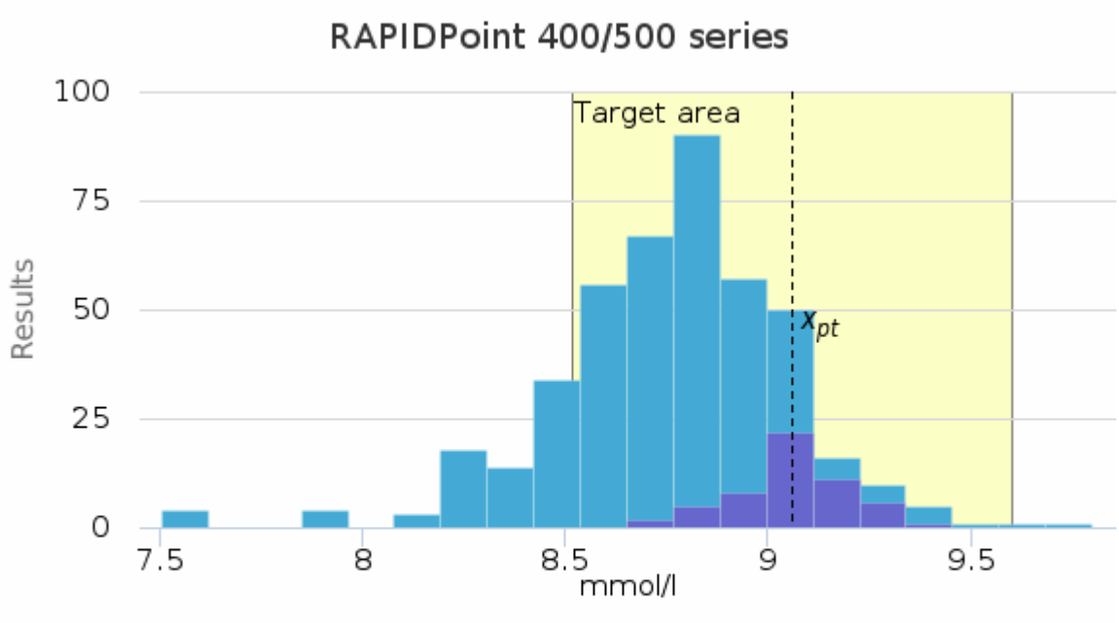




All method groups | Gem Premier 5000 (x_{pt}: 8.4 | Target area: 7.9-8.9 | Target: ±6%)

All method groups | i-STAT (x_{pt}: 8.9 | Target area: 8.4-9.5 | Target: ±6%)





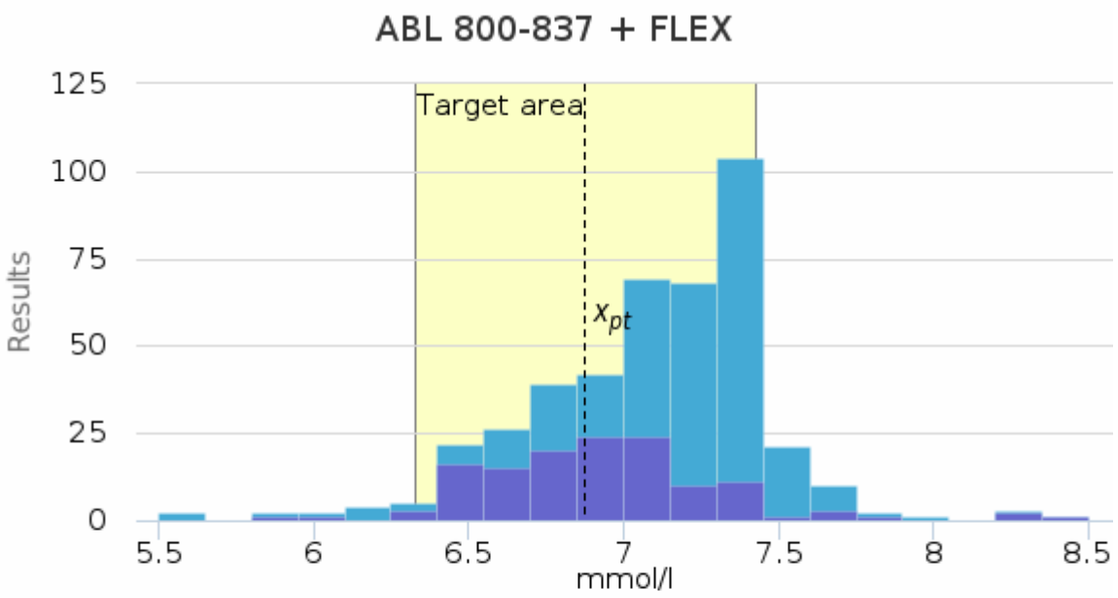
All method groups | i-STAT Alinity (x_{pt}: 9.0 | Target area: 8.4-9.5 | Target: ±6%)

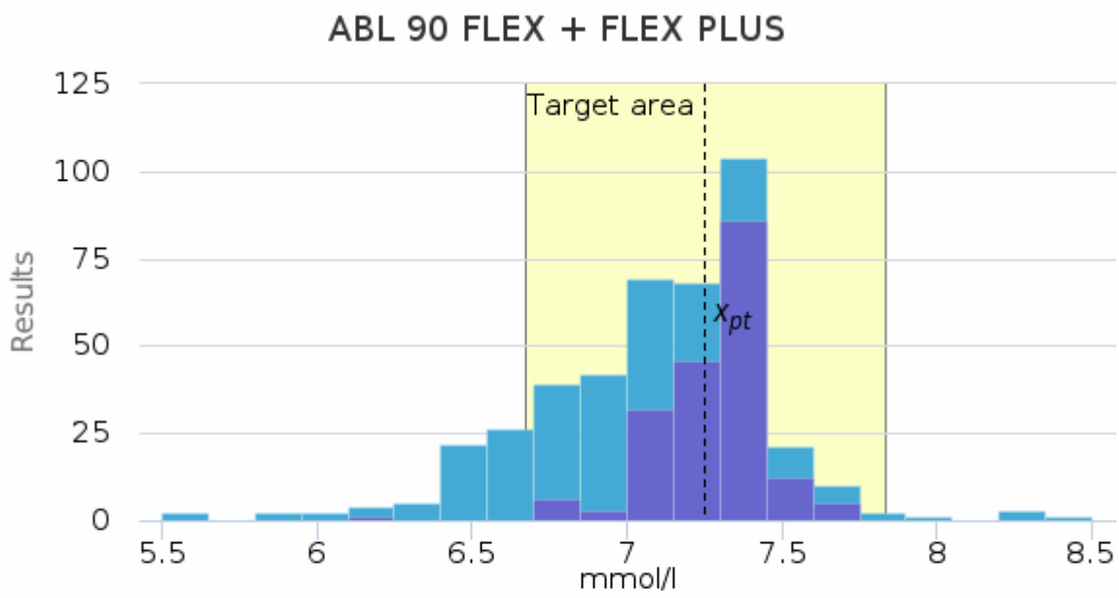
All method groups | RAPIDPoint 400/500 series (x_{pt}: 9.1 | Target area: 8.5-9.6 | Target: ±6%)

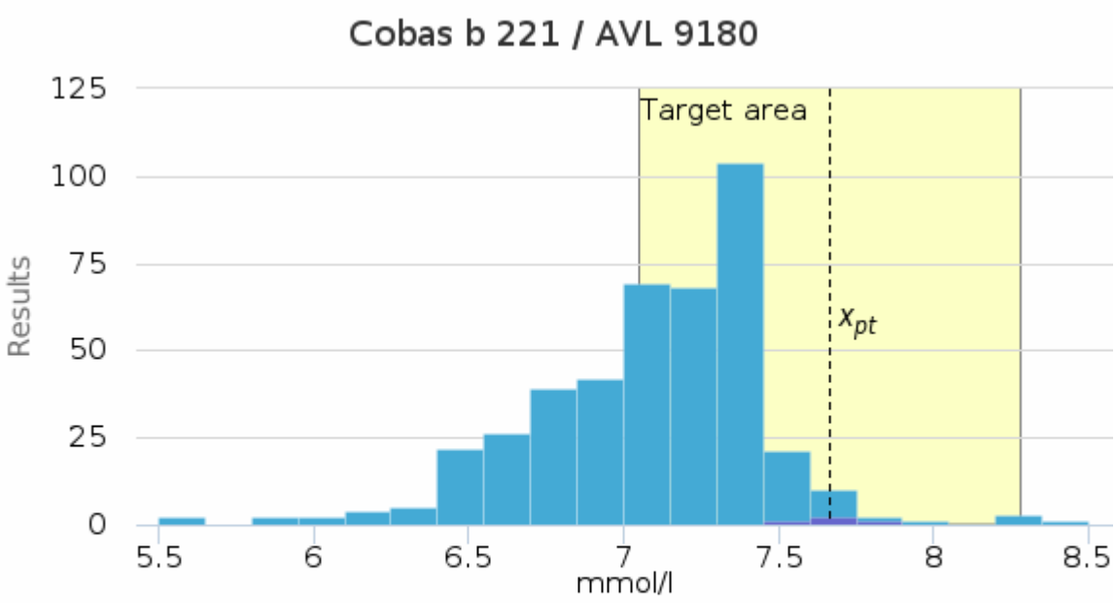
Sample S002 | Lactate, mmol/l

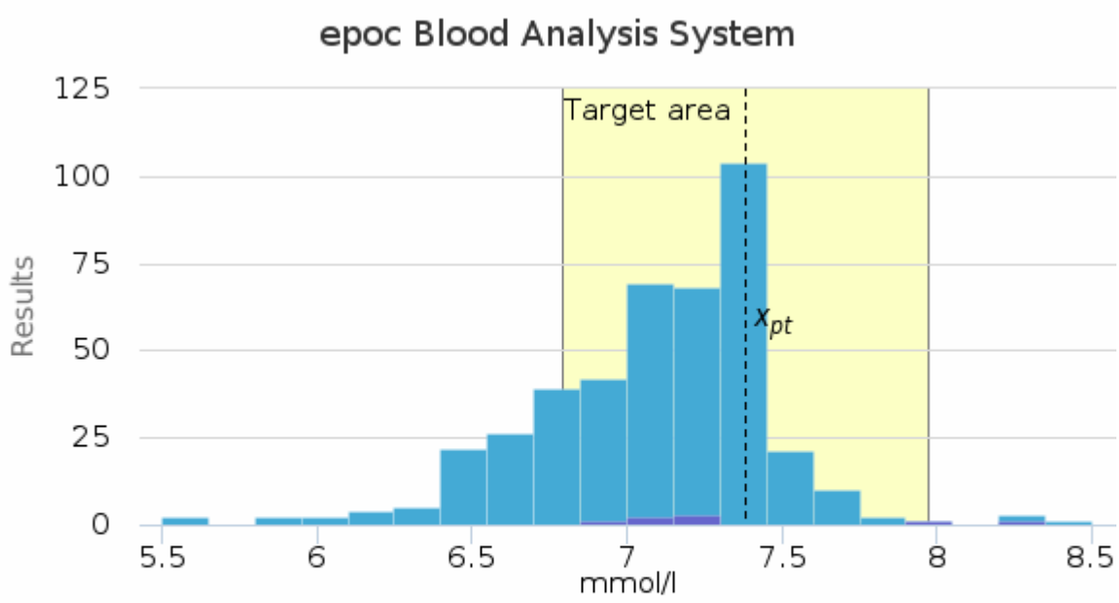
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	6.9	6.9	0.3	4.9	<0.1	5.8	7.8	3	133
ABL 90 FLEX + FLEX PLUS	7.3	7.3	0.2	2.1	<0.1	6.8	7.6	3	191
Cobas b 221 / AVL 9180	7.7	7.7	0.1	1.7	<0.1	7.5	7.8	-	4
epoc Blood Analysis System	7.4	7.2	0.5	6.3	0.2	7.0	8.2	-	8
Gem Premier 3000-3500	6.5	6.3	0.7	10.3	0.2	5.6	7.5	-	9
Gem Premier 4000	7.3	7.3	0.1	1.8	<0.1	7.1	7.4	-	4
Gem Premier 5000	6.9	7.0	0.5	7.3	0.2	5.5	7.2	-	10
i-STAT	7.4	7.5	0.1	1.5	<0.1	7.2	7.6	-	9
i-STAT Alinity	-	-	-	-	-	7.4	7.4	-	1
RAPIDPoint 400/500 series	6.8	6.8	0.3	4.0	<0.1	6.2	7.6	-	54
All	**7.1**	**7.1**	**0.3**	**4.8**	**<0.1**	**6.0**	**8.2**	**6**	**423**

Sample S002 | Lactate, mmol/l| histogram summaries in LabScala

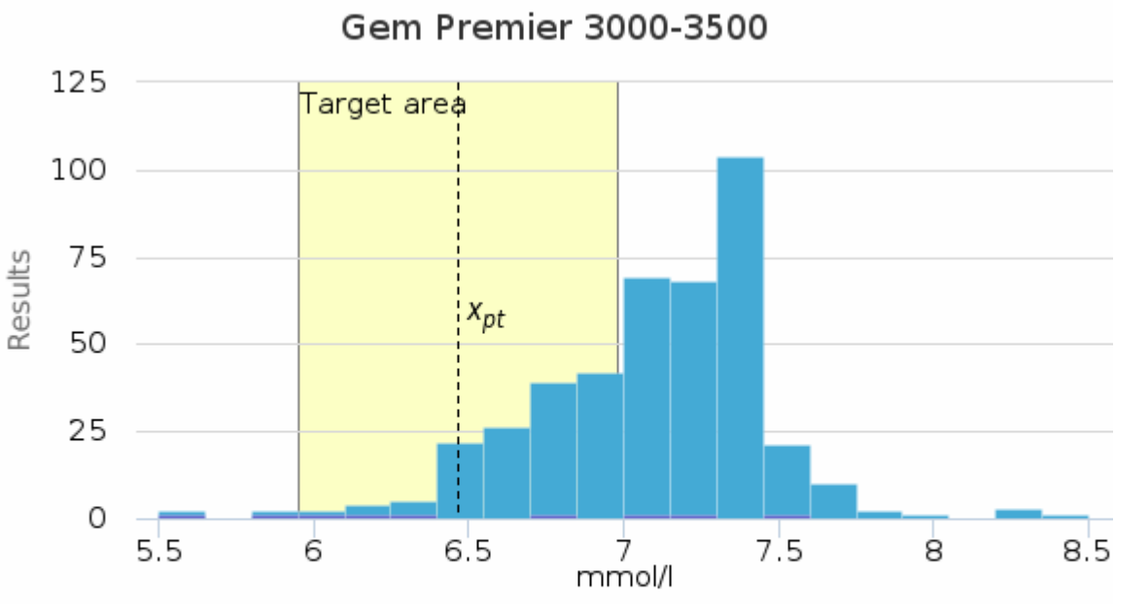


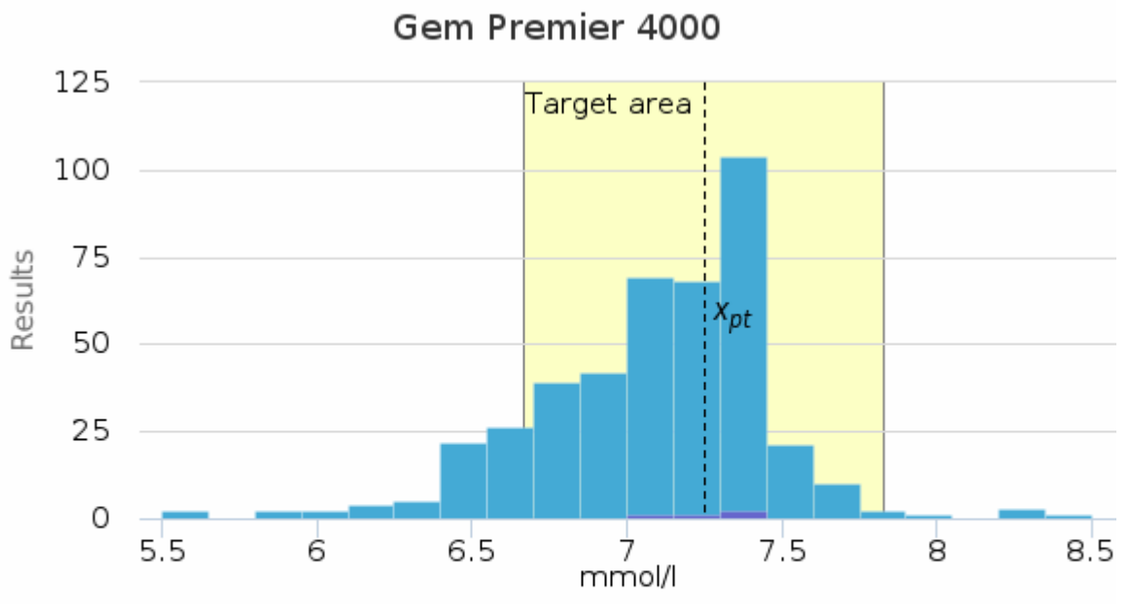


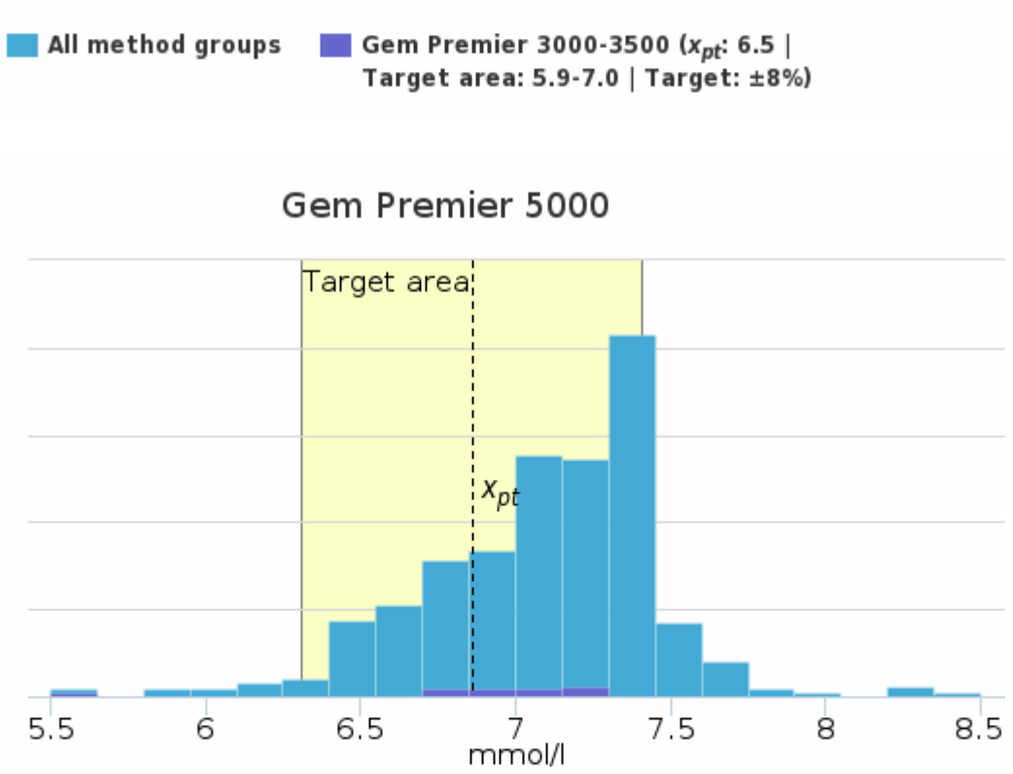


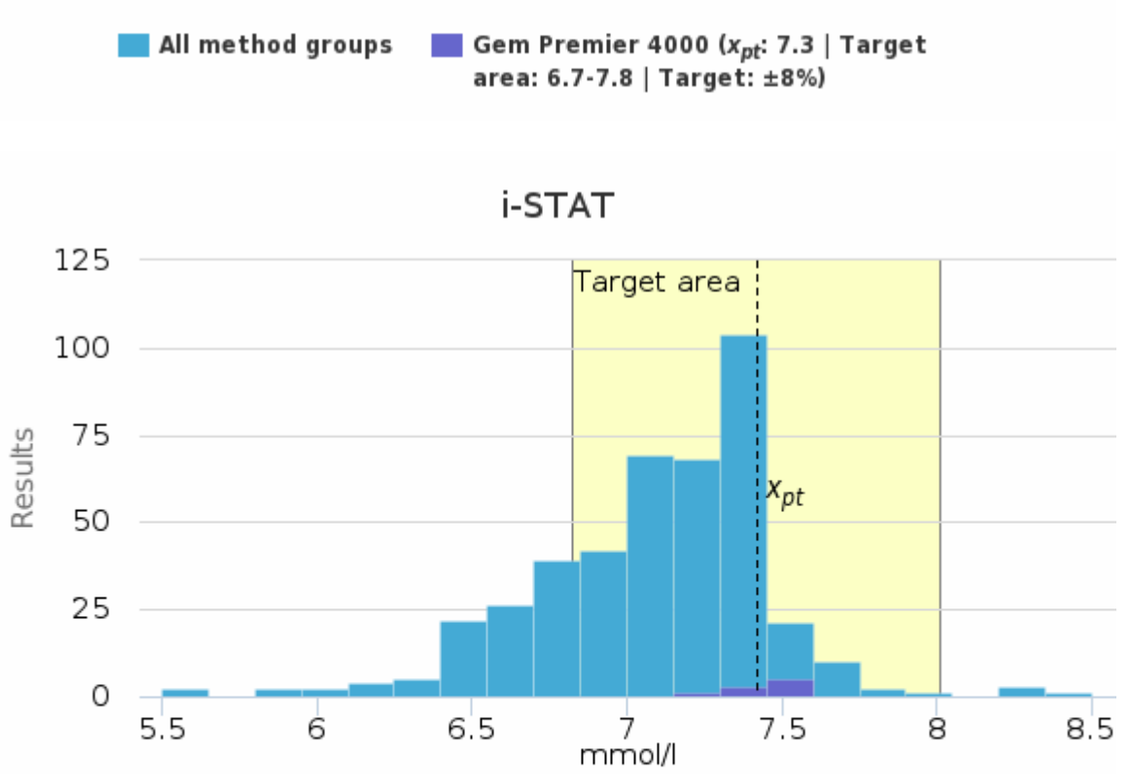


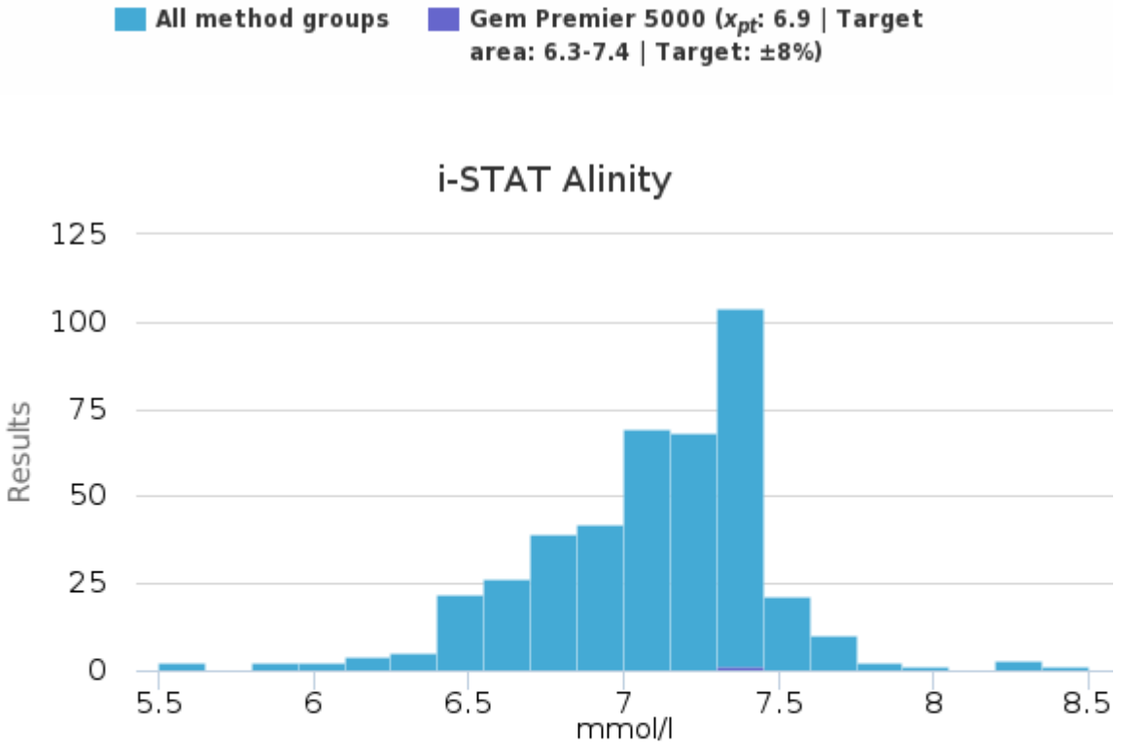
Acid-base status and electrolytes, February, 1-2023

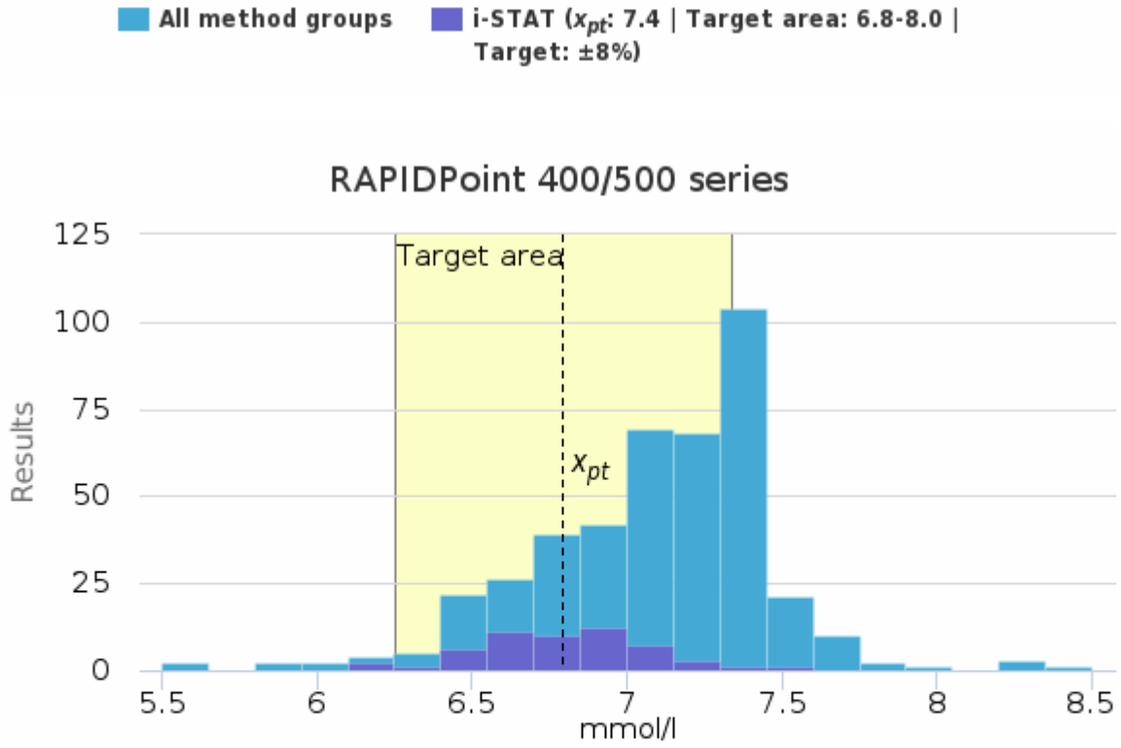








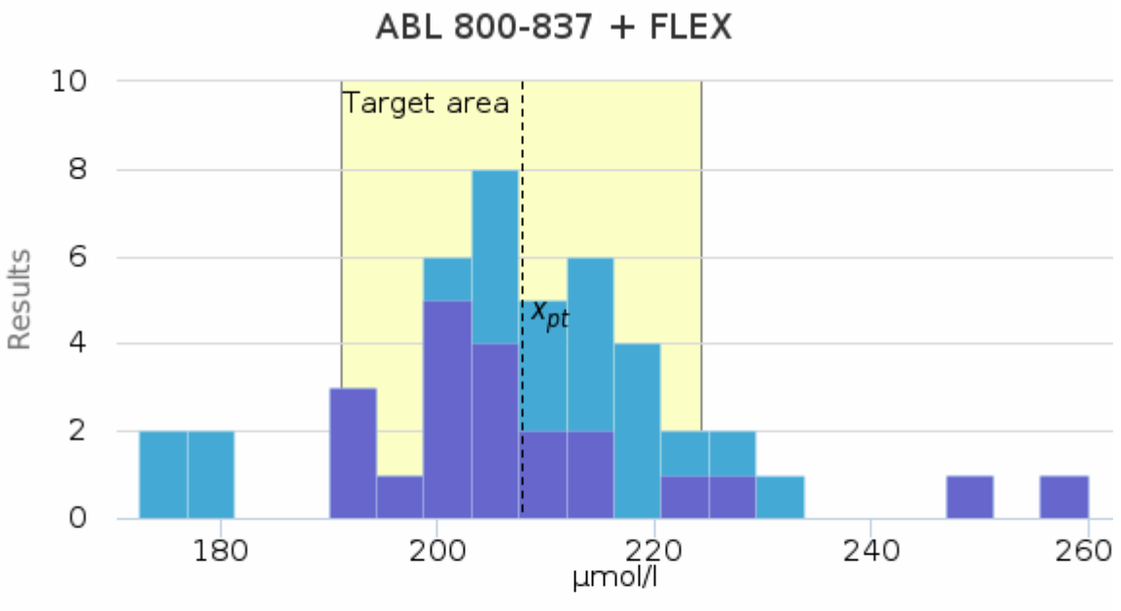


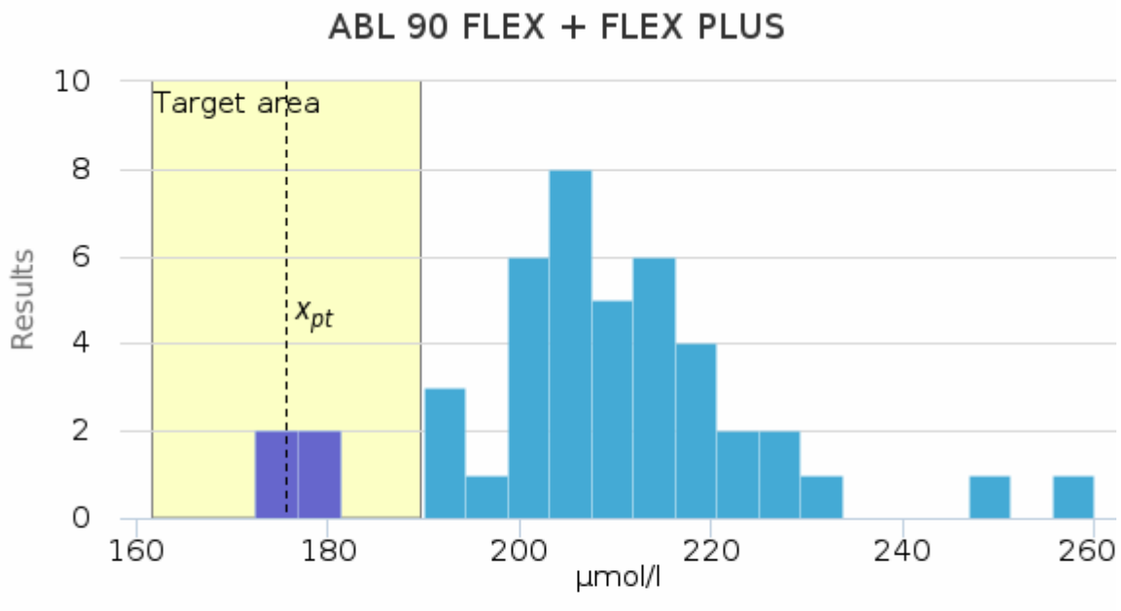


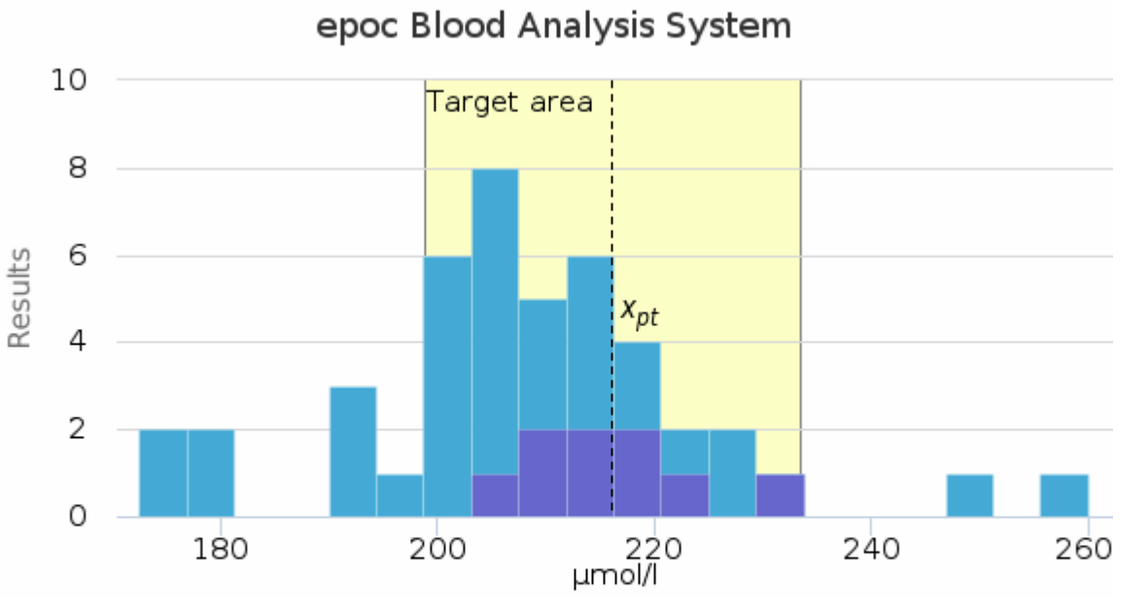
Sample S002 | Crea, µmol/l

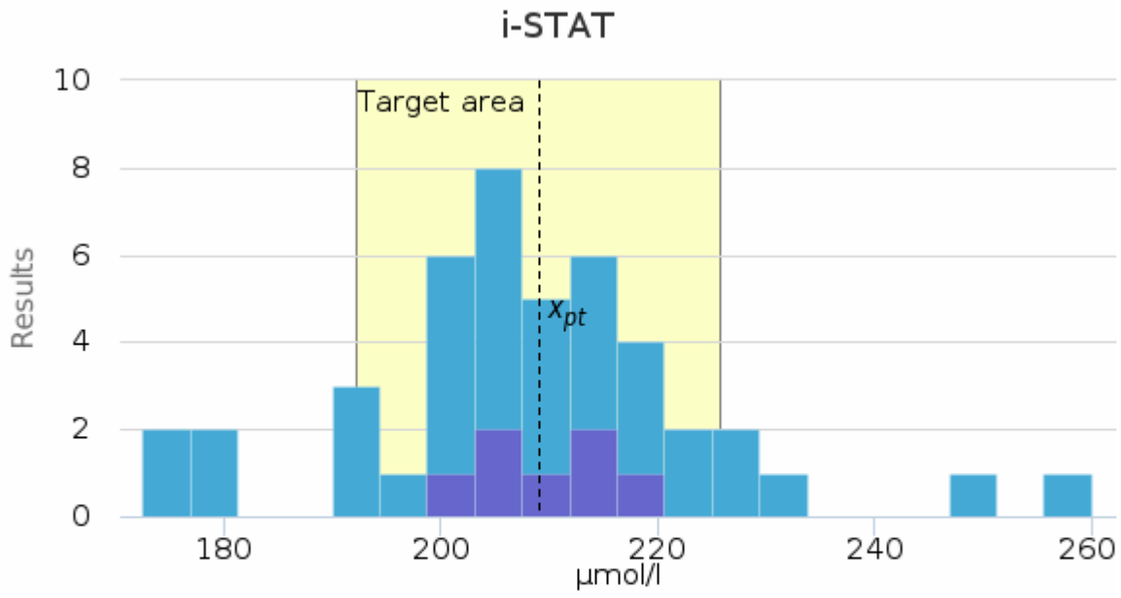
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	208	204	13	6.3	3	192	247	1	21
ABL 90 FLEX + FLEX PLUS	176	175	4	2.0	2	173	180	-	4
epoc Blood Analysis System	216	215	9	4.0	3	205	233	-	9
i-STAT	209	210	7	3.2	3	199	218	-	7
i-STAT Alinity	216	217	10	4.7	6	205	225	-	3
All	**207**	**207**	**15**	**7.2**	**2**	**173**	**247**	**1**	**44**

Sample S002 | Crea, µmol/l| histogram summaries in LabScala

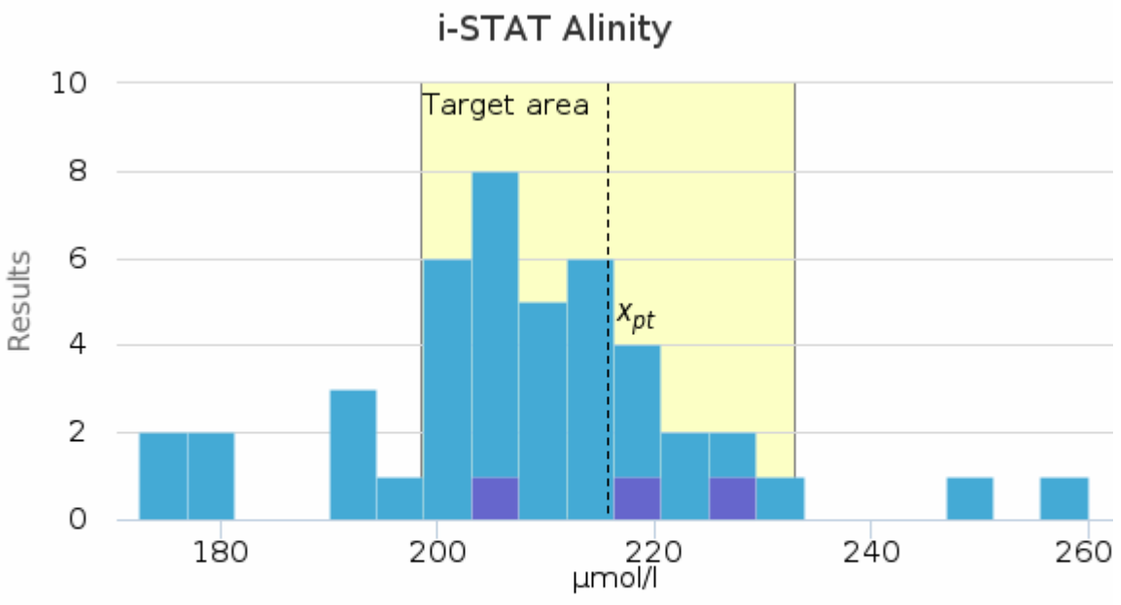








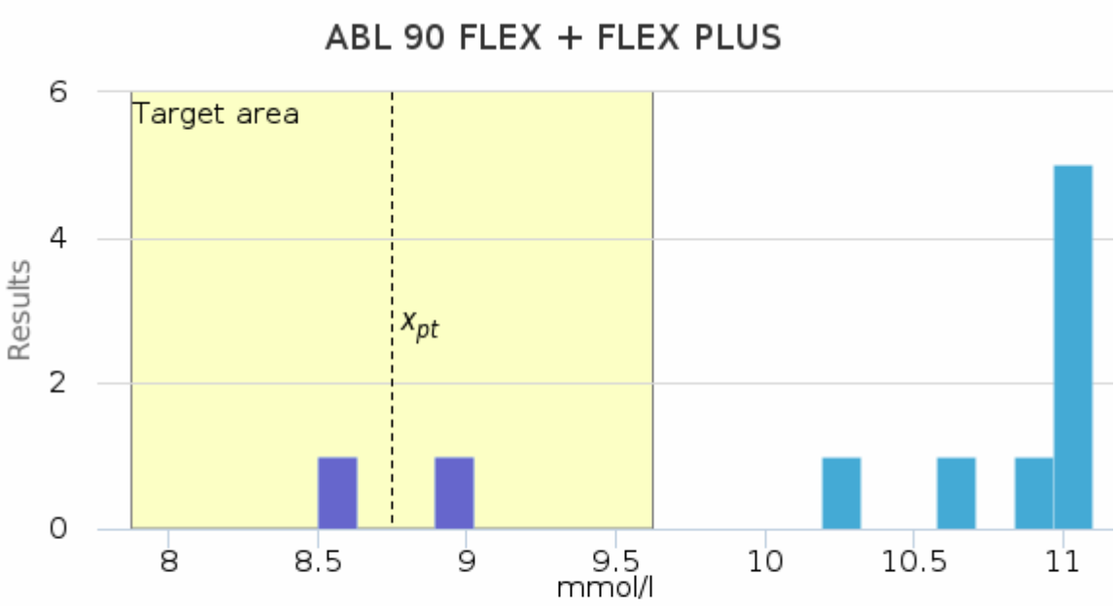
Acid-base status and electrolytes, February, 1-2023

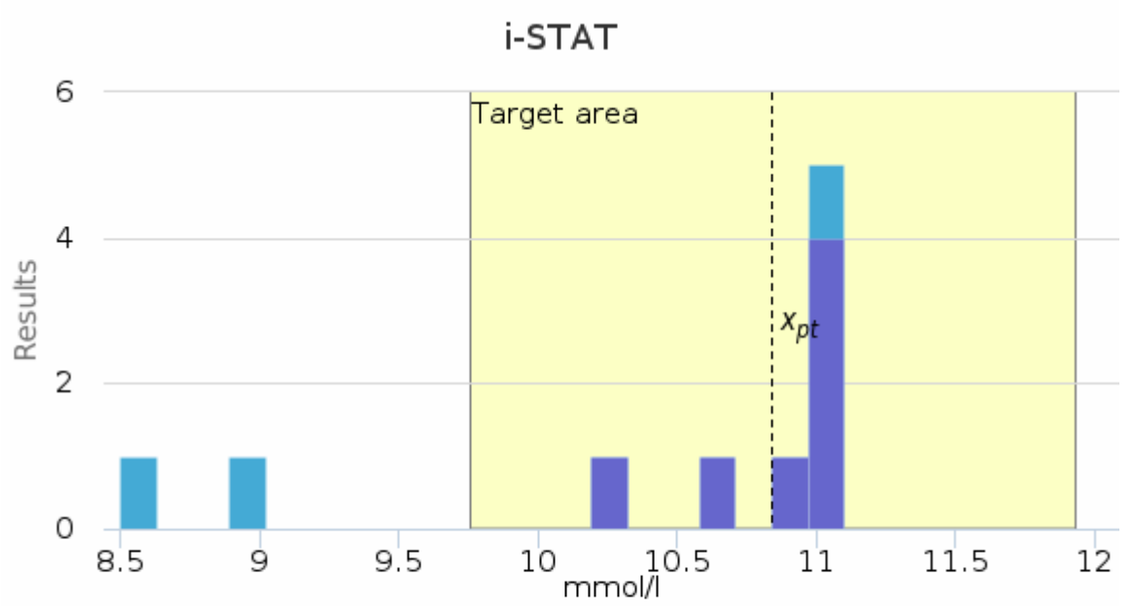


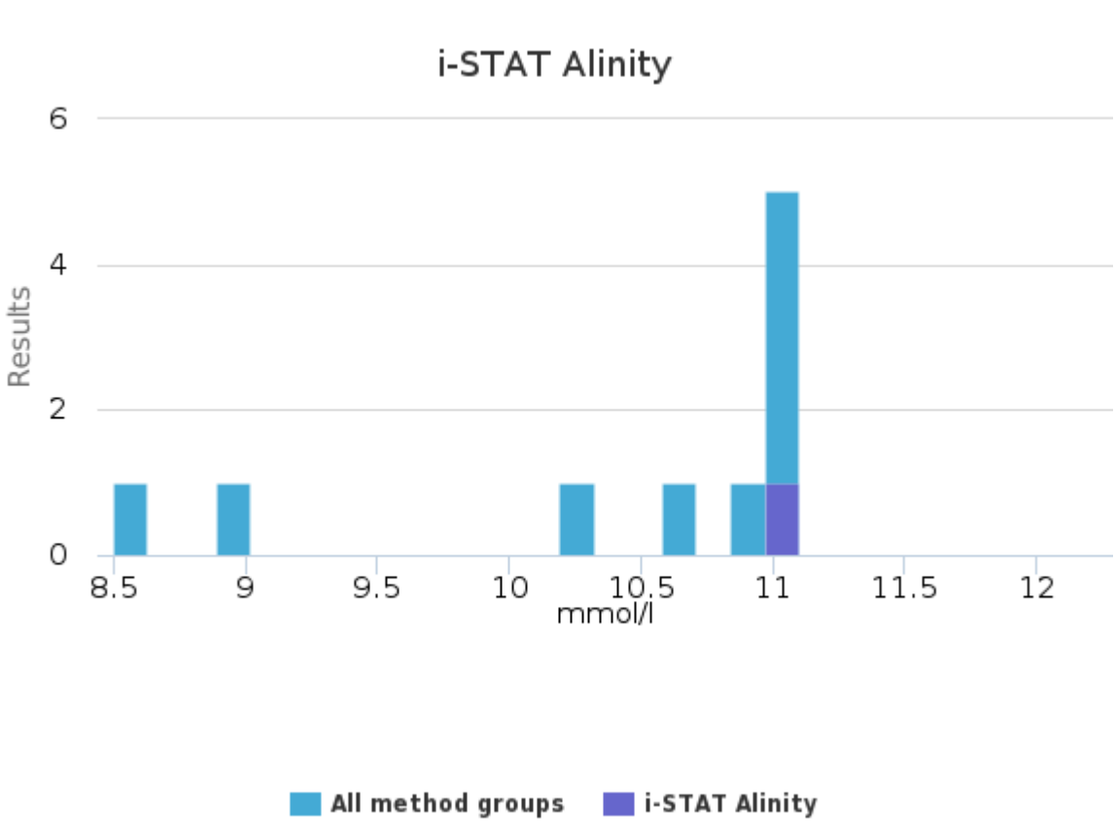
Sample S002 | Urea, mmol/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 90 FLEX + FLEX PLUS	8.8	8.8	0.4	4.0	0.3	8.5	9.0	-	2
i-STAT	10.8	11.0	0.3	2.9	0.1	10.2	11.1	-	7
i-STAT Alinity	-	-	-	-	-	11.0	11.0	-	1
All	**10.4**	**11.0**	**0.9**	**9.0**	**0.3**	**8.5**	**11.1**	**-**	**10**

Sample S002 | Urea, mmol/l| histogram summaries in LabScala



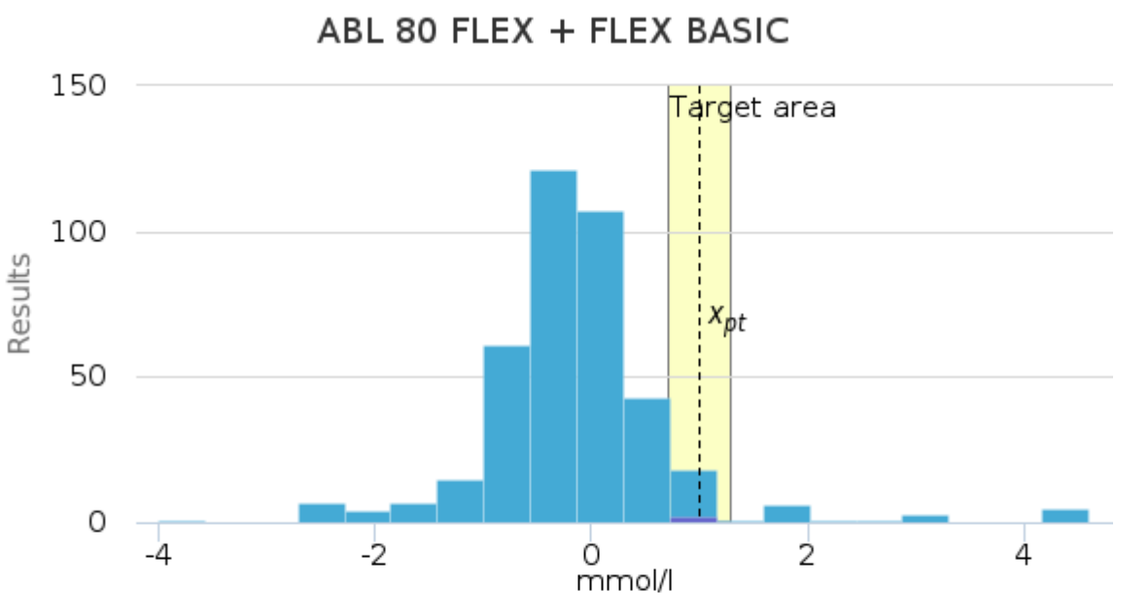


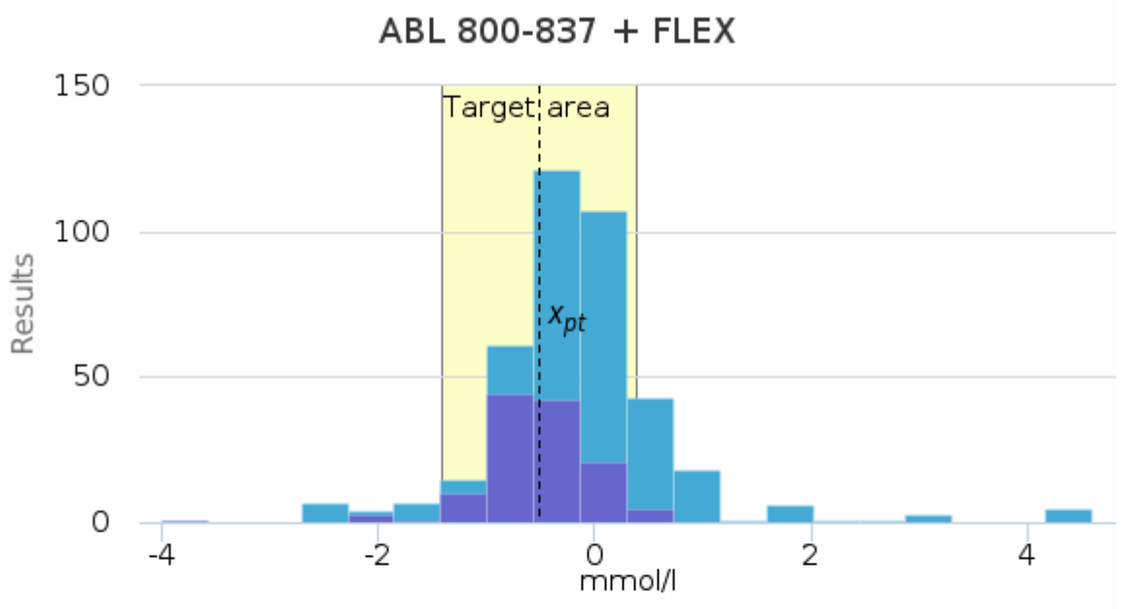


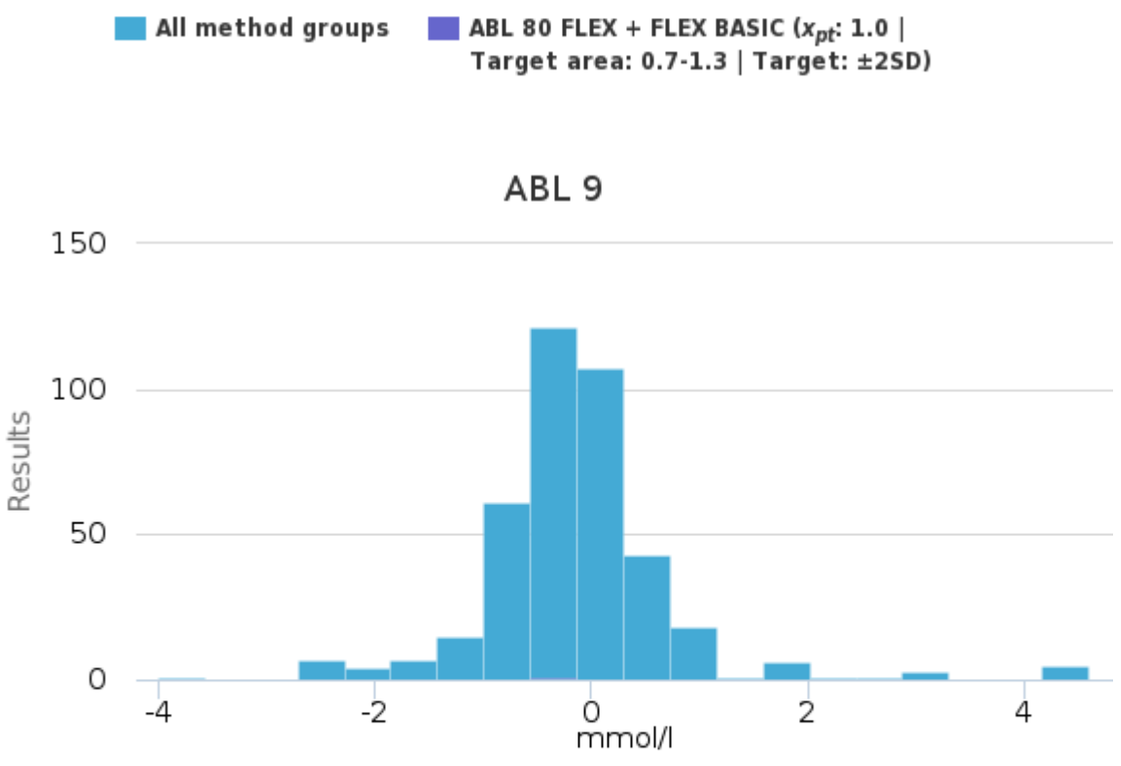
Sample S002 | Base excess, mmol/l

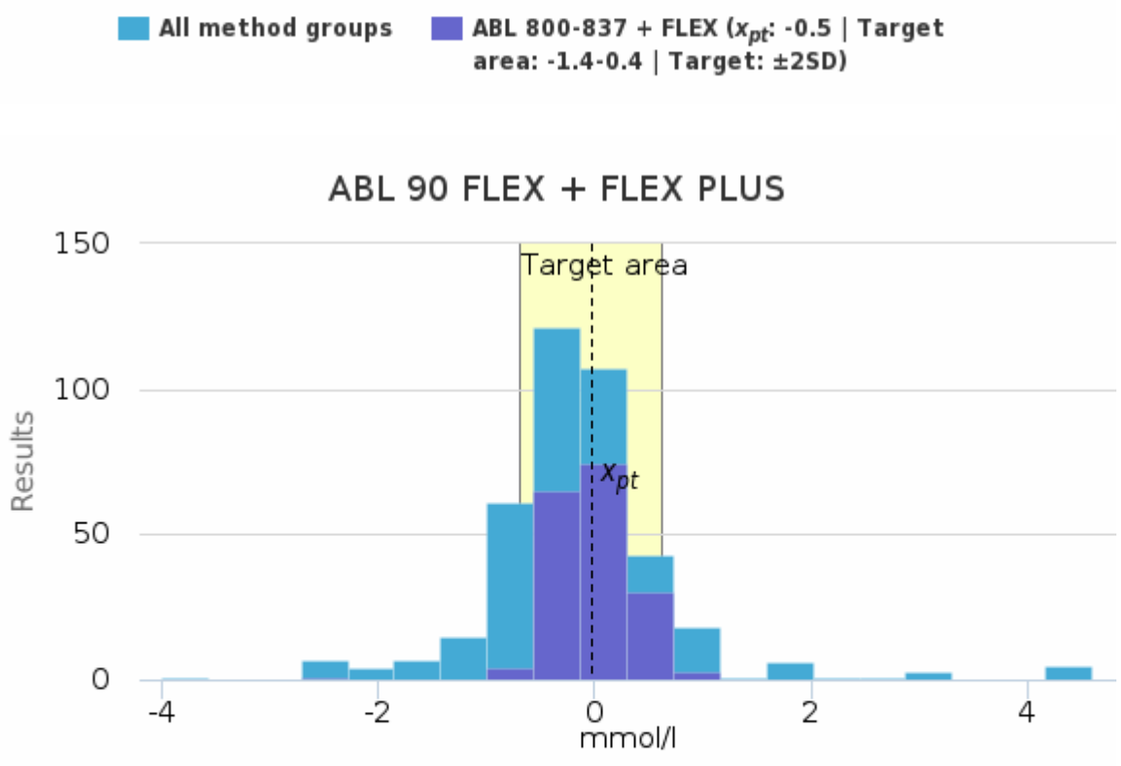
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	1.0	1.0	0.1	14.1	0.1	0.9	1.1	-	2
ABL 800-837 + FLEX	-0.5	-0.5	0.4	88.9	<0.1	-2.0	0.7	1	127
ABL 9	-	-	-	-	-	-0.5	-0.5	-	1
ABL 90 FLEX + FLEX PLUS	0.0	0.0	0.3	1124.5	<0.1	-0.8	0.9	1	177
Cobas b 221 / AVL 9180	0.3	0.3	0.2	74.0	<0.1	0.0	0.6	-	7
epoc Blood Analysis System	-1.0	-1.0	0.6	55.9	0.2	-1.7	-0.2	-	6
Gem Premier 3000-3500	3.7	3.7	1.2	32.9	0.9	2.8	4.5	-	2
Gem Premier 4000	3.7	3.7	0.8	21.3	0.6	3.1	4.2	-	2
Gem Premier 5000	3.7	3.8	1.0	27.4	0.4	2.3	4.6	-	6
i-STAT	0.9	1.0	0.7	78.0	0.2	-0.4	2.0	-	16
i-STAT Alinity	1.7	2.0	0.5	31.0	0.2	1.0	2.0	-	6
RAPIDLab 1200 series (RL1240-RL1265)	0.7	0.7	0.7	101.0	0.5	0.2	1.2	-	2
RAPIDPoint 400/500 series	-0.8	-0.7	0.9	111.7	0.1	-2.7	1.1	-	47
All	**-0.2**	**-0.2**	**0.7**	**319.6**	**<0.1**	**-2.7**	**2.3**	**10**	**401**

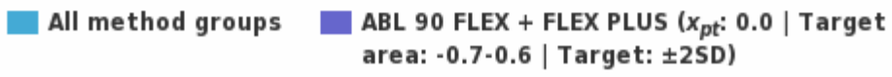
Sample S002 | Base excess, mmol/l| histogram summaries in LabScala



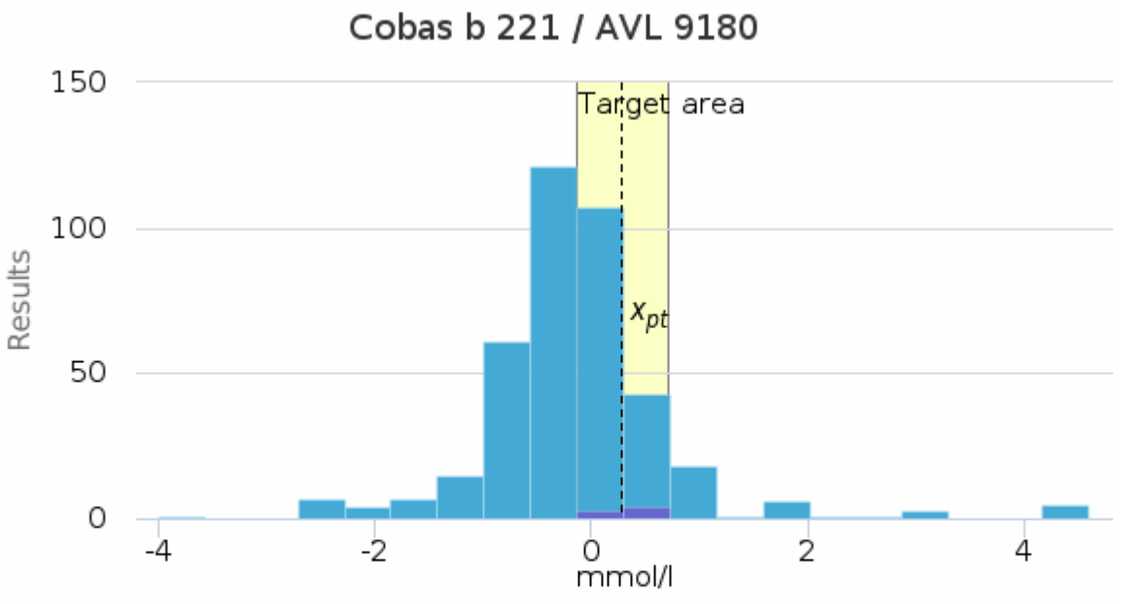


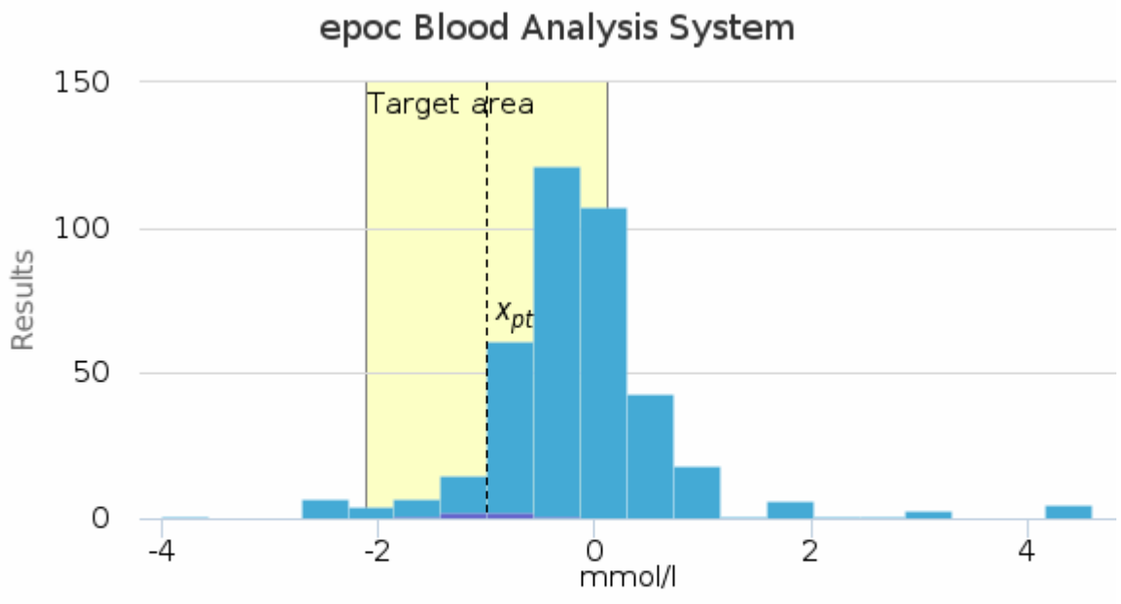






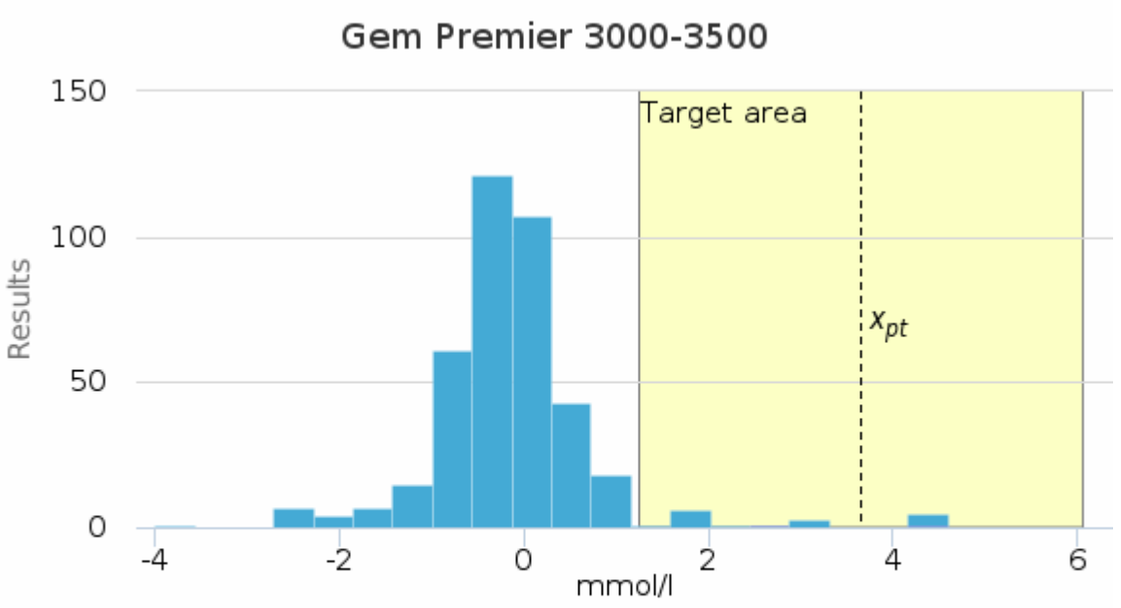
Acid-base status and electrolytes, February, 1-2023

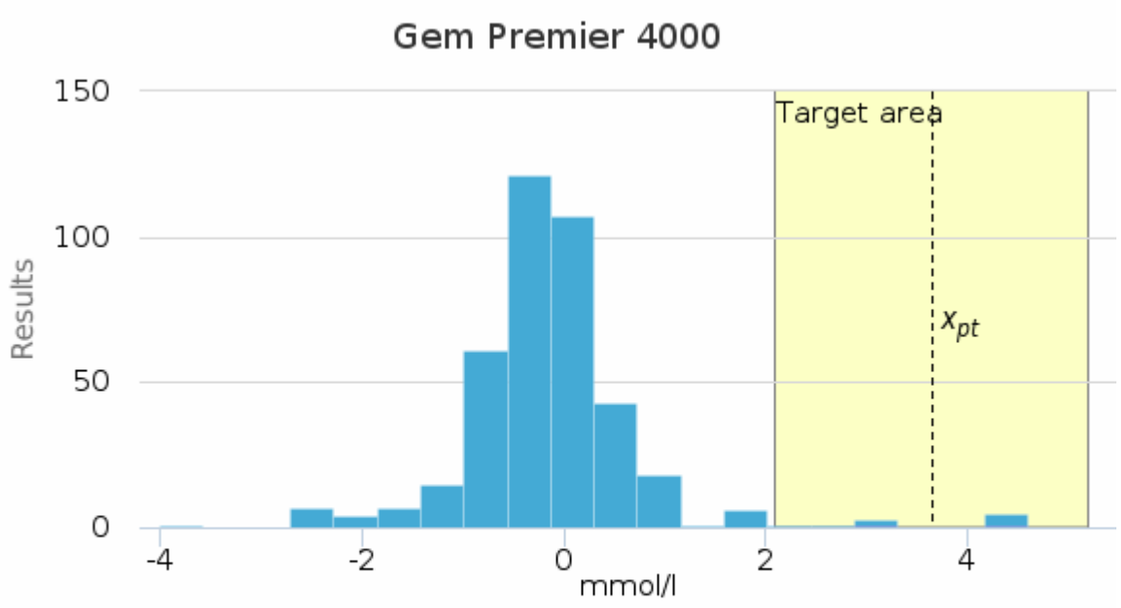




All method groups | Cobas b 221 / AVL 9180 (x_{pt}: 0.3 | Target area: -0.1-0.7 | Target: ±2SD)

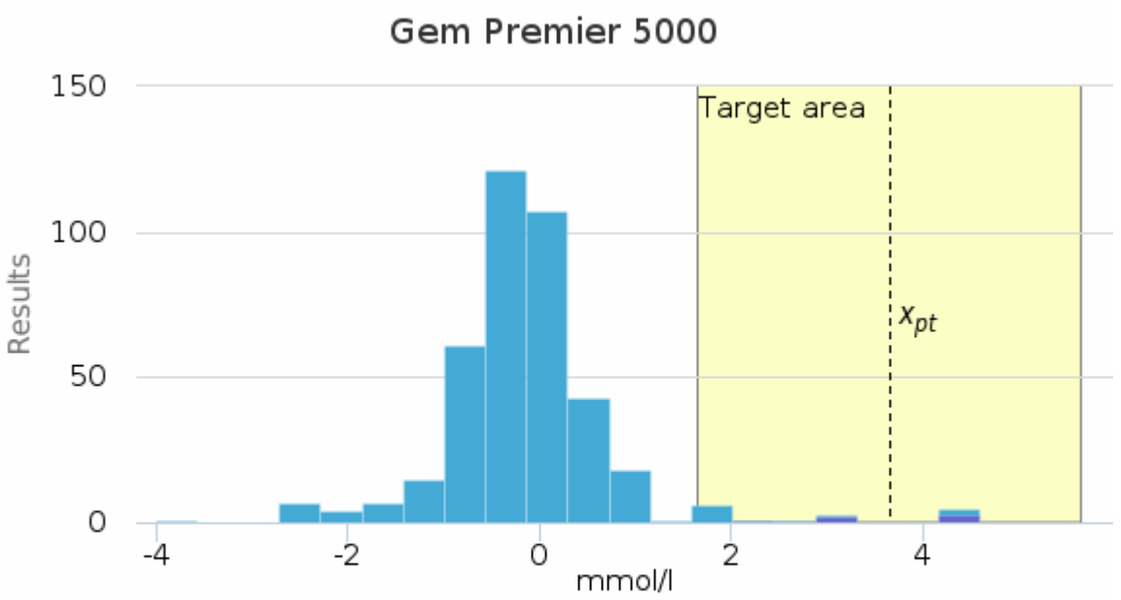
All method groups | epoc Blood Analysis System (x_{pt}: -1.0 | Target area: -2.1-0.1 | Target: ±2SD)

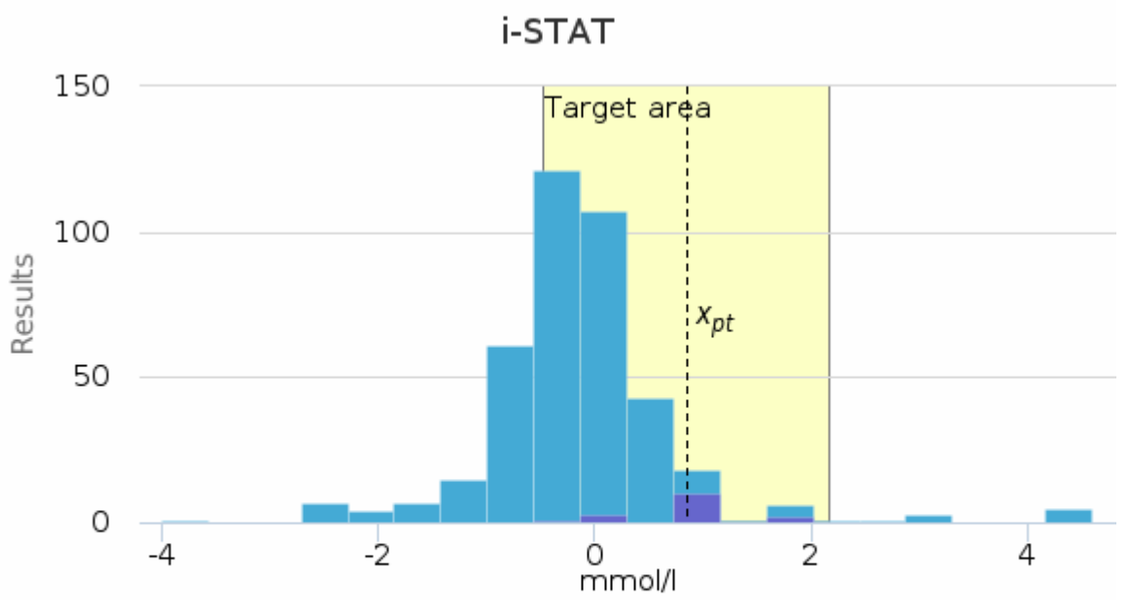




All method groups | Gem Premier 3000-3500 (x_{pt}: 3.7 | Target area: 1.2-6.1 | Target: ±2SD)

All method groups | Gem Premier 4000 (x_{pt}: 3.7 | Target area: 2.1-5.2 | Target: ±2SD)

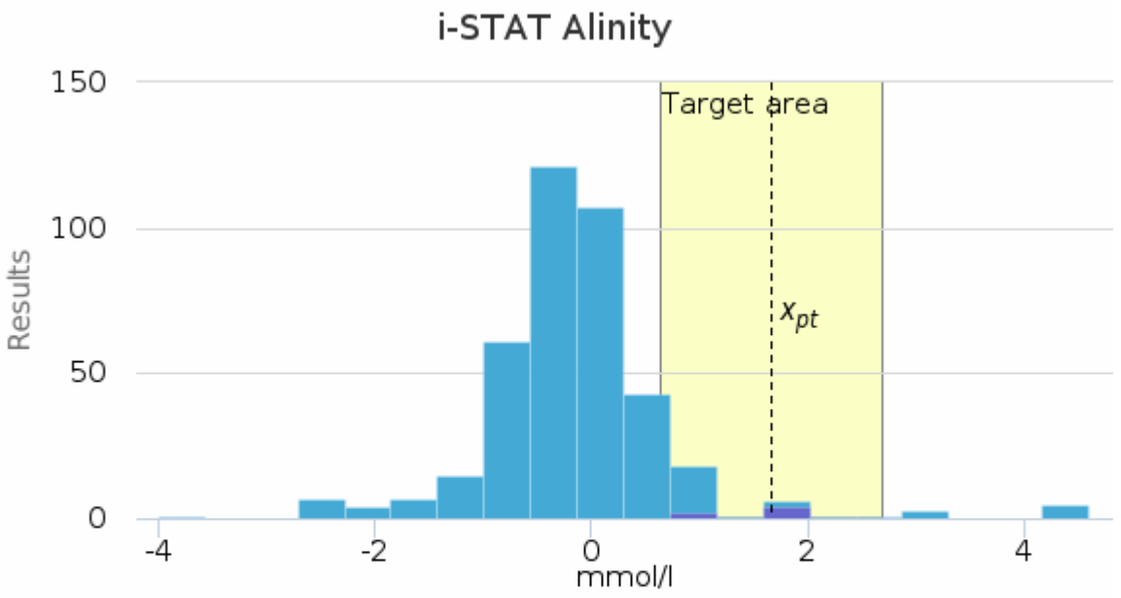


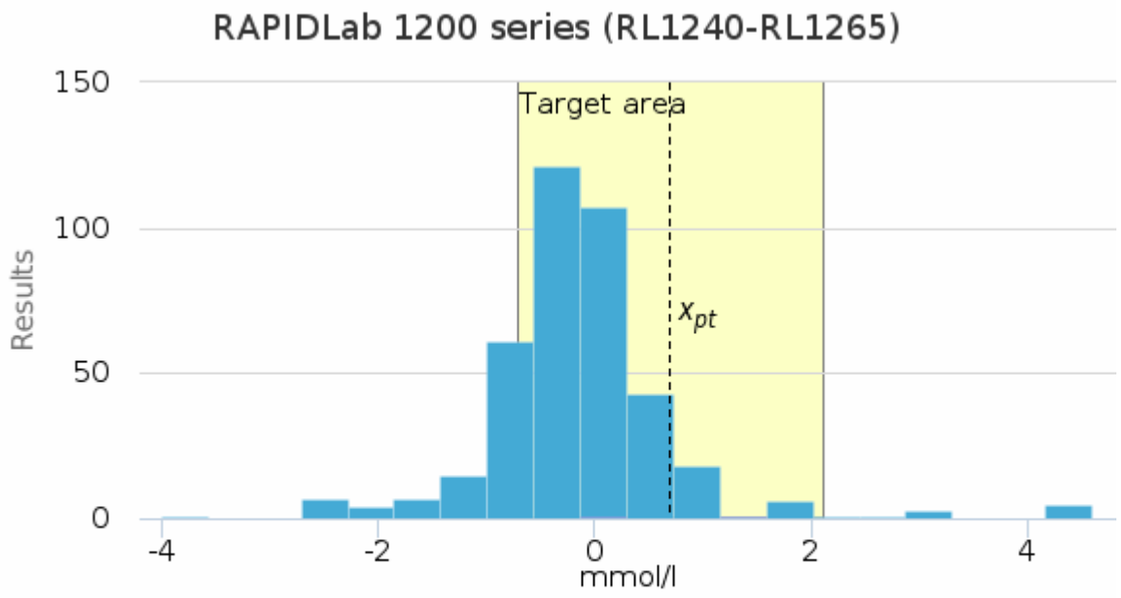


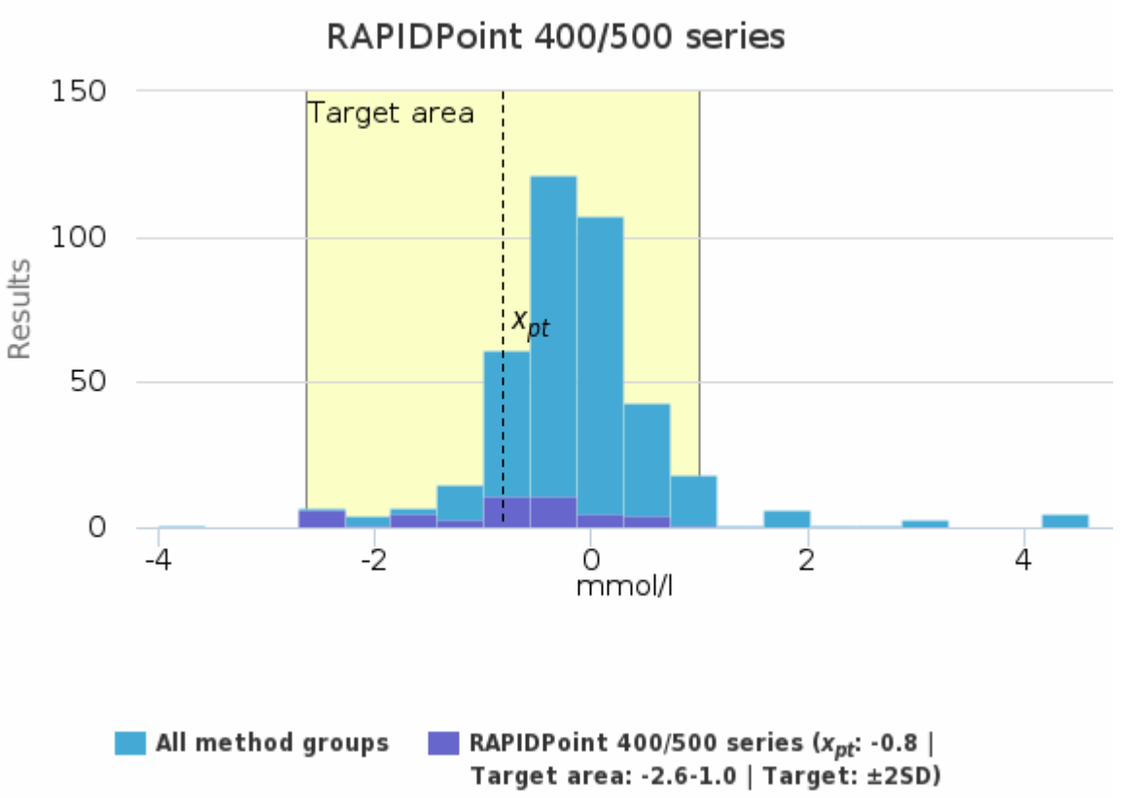
All method groups | Gem Premier 5000 (x_{pt}: 3.7 | Target area: 1.6-5.7 | Target: ±2SD)

All method groups | i-STAT (x_{pt}: 0.9 | Target area: -0.5-2.2 | Target: ±2SD)

Acid-base status and electrolytes, February, 1-2023



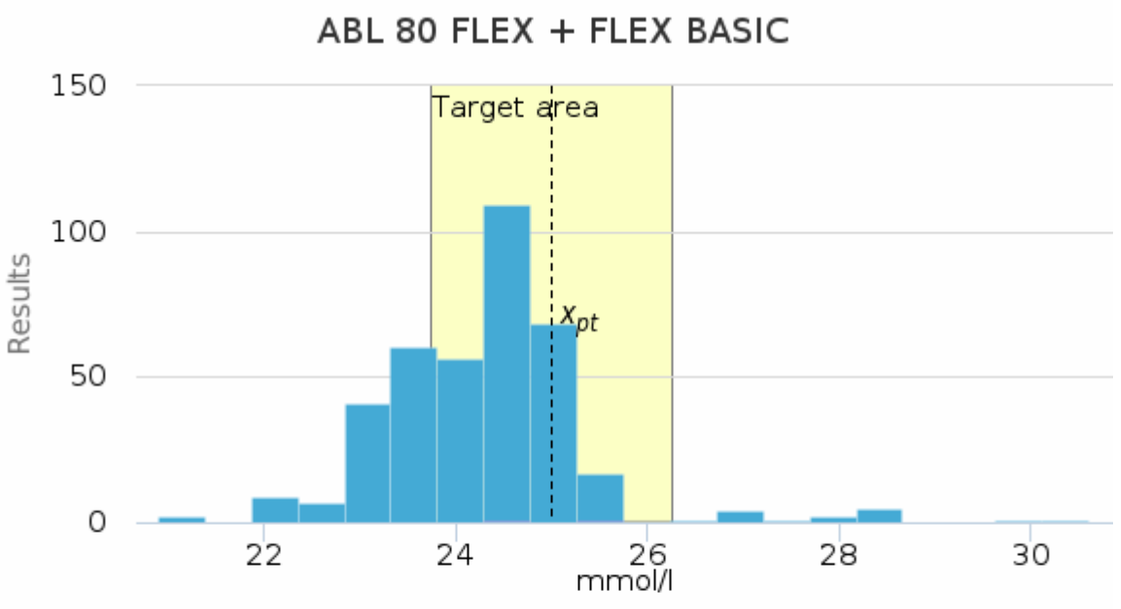


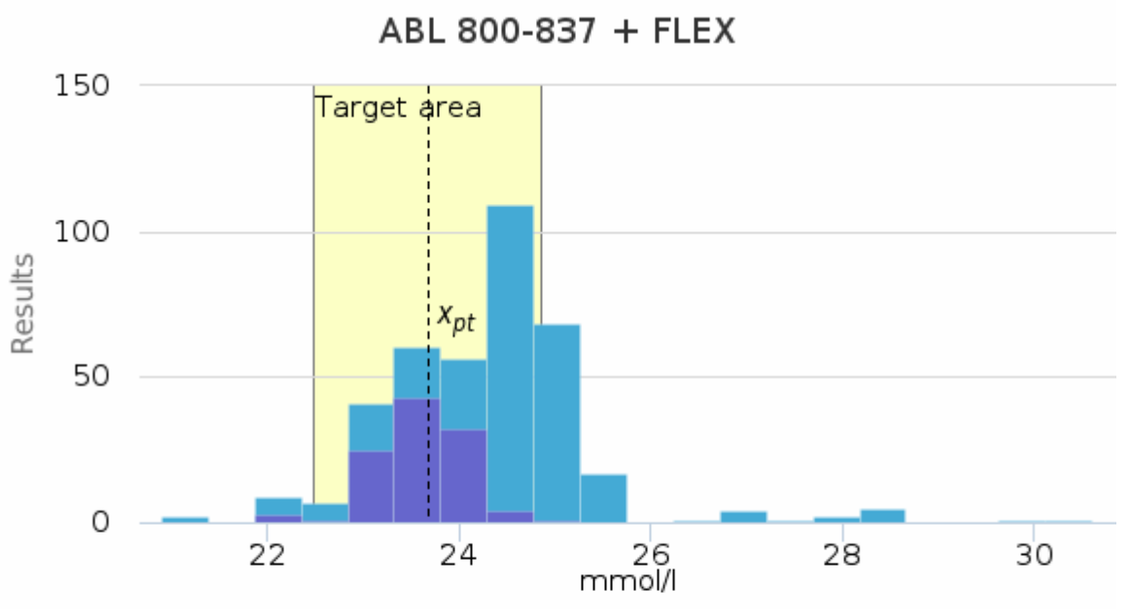


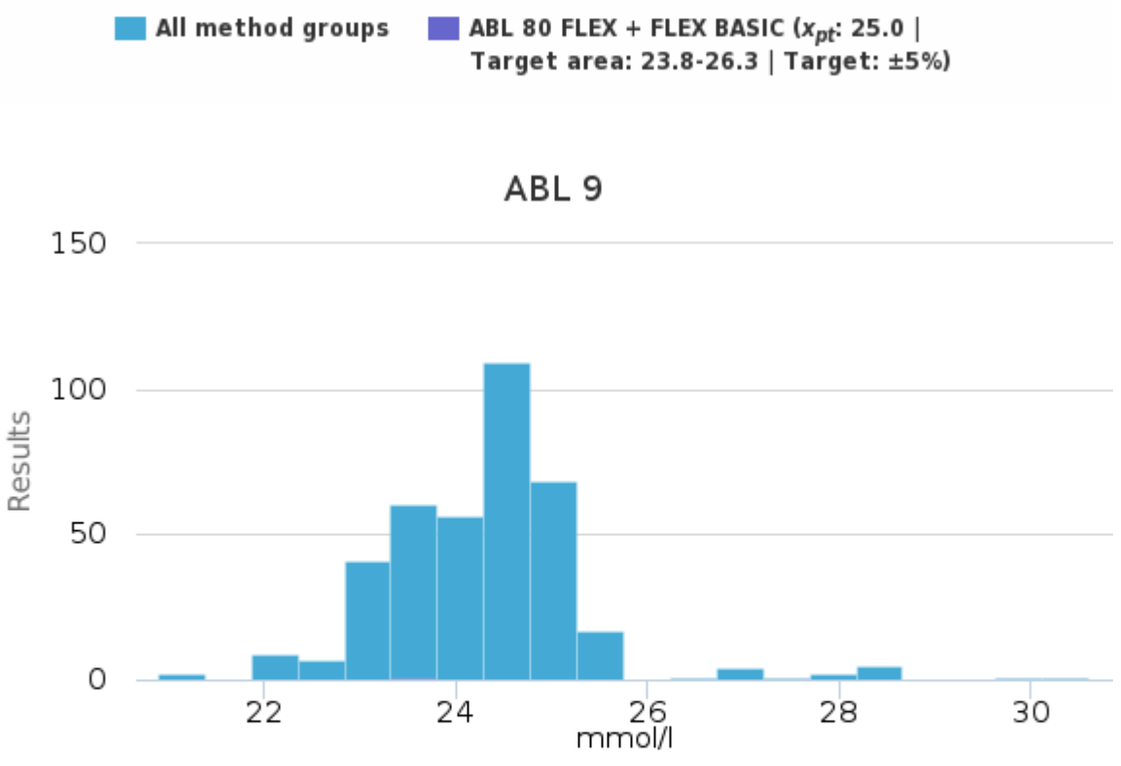
Sample S002 | HCO3, mmol/l

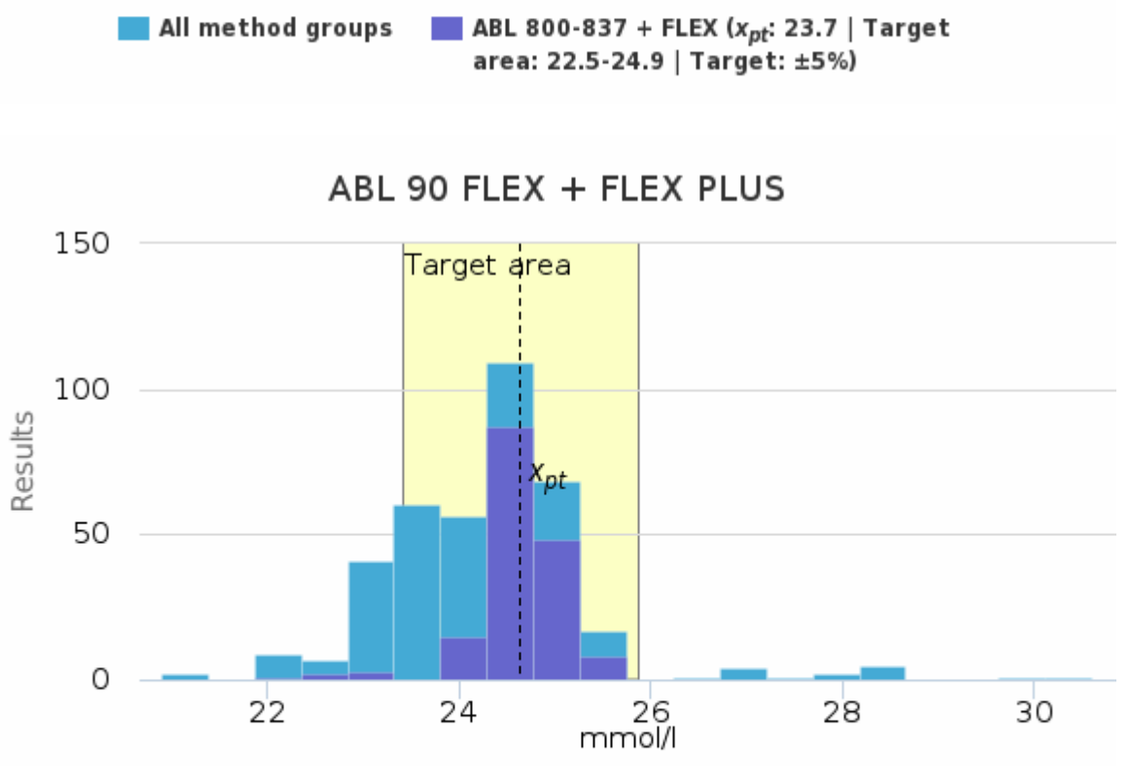
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	25.0	25.0	0.4	1.7	0.3	24.7	25.3	-	2
ABL 800-837 + FLEX	23.7	23.7	0.4	1.6	<0.1	22.6	25.0	3	109
ABL 9	-	-	-	-	-	23.8	23.8	-	1
ABL 90 FLEX + FLEX PLUS	24.6	24.6	0.3	1.4	<0.1	23.9	25.5	6	164
Cobas b 221 / AVL 9180	24.9	25.0	0.3	1.1	<0.1	24.5	25.2	-	7
epoc Blood Analysis System	23.7	23.7	0.6	2.7	0.2	22.9	24.8	-	8
Gem Premier 3000-3500	27.7	27.7	0.6	2.0	0.3	27.1	28.5	-	5
Gem Premier 4000	27.0	27.0	1.3	4.8	0.8	25.7	28.3	-	3
Gem Premier 5000	28.3	28.2	1.3	4.8	0.5	26.5	30.6	-	8
i-STAT	24.7	24.9	0.5	2.0	0.1	23.8	25.6	-	15
i-STAT Alinity	25.2	25.3	0.2	0.9	<0.1	24.8	25.4	-	7
RAPIDLab 1200 series (RL1240-RL1265)	24.8	24.7	0.3	1.2	0.2	24.5	25.1	-	3
RAPIDPoint 400/500 series	23.5	23.7	0.9	4.0	0.1	20.9	25.4	-	52
All	**24.2**	**24.3**	**0.8**	**3.5**	**<0.1**	**21.3**	**27.3**	**10**	**384**

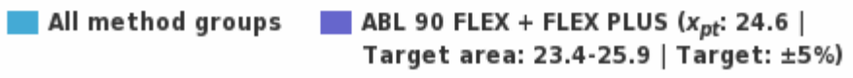
Sample S002 | HCO3, mmol/l| histogram summaries in LabScala



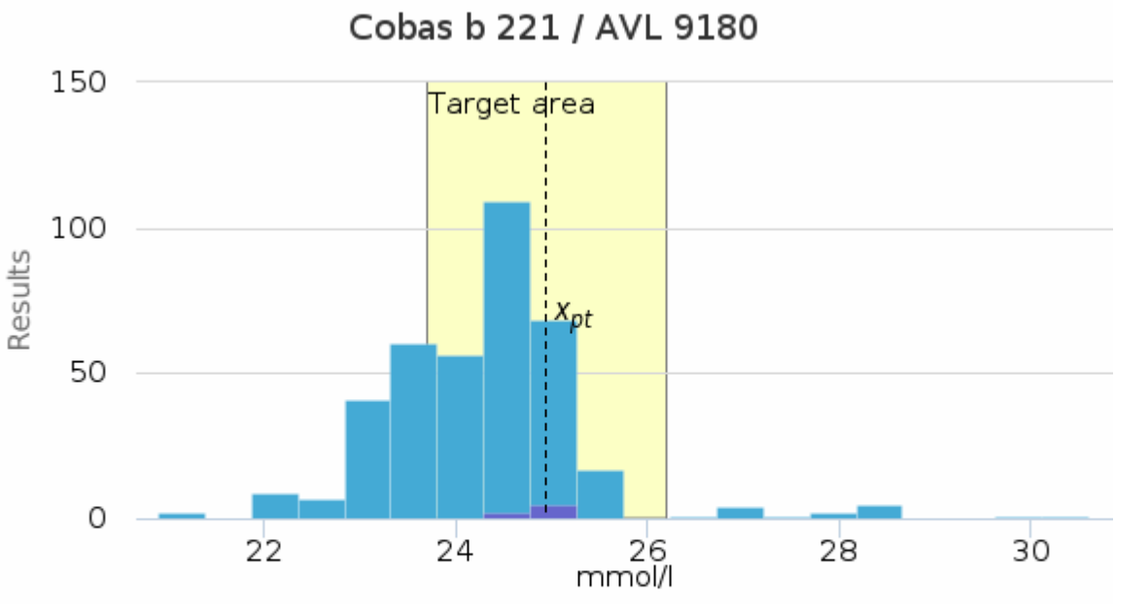


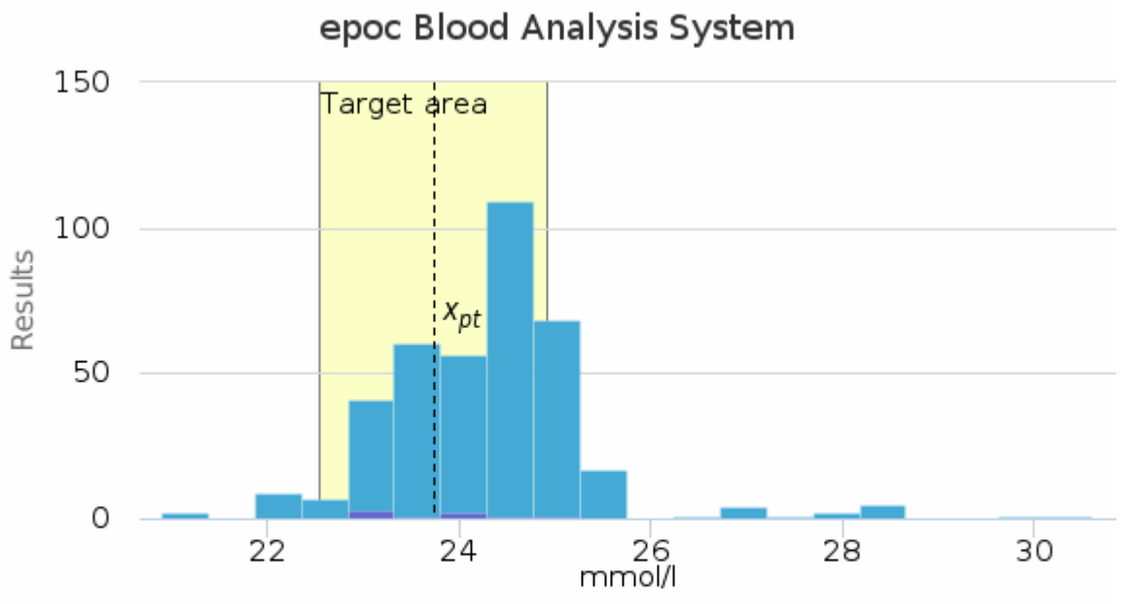






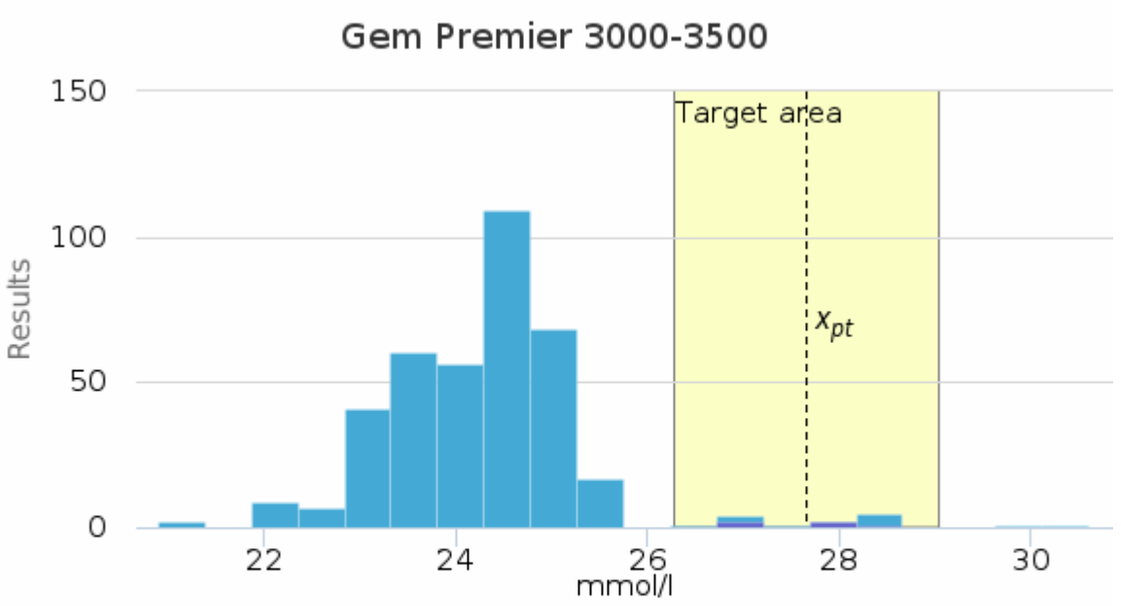
Acid-base status and electrolytes, February, 1-2023

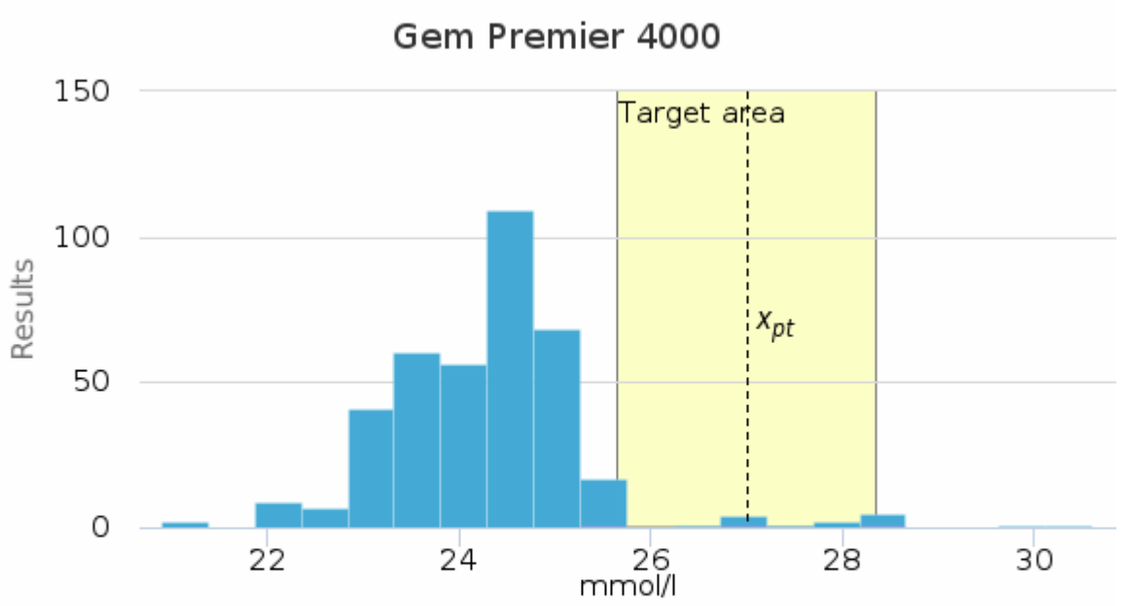




All method groups | Cobas b 221 / AVL 9180 (x_{pt}: 24.9 | Target area: 23.7-26.2 | Target: ±5%)

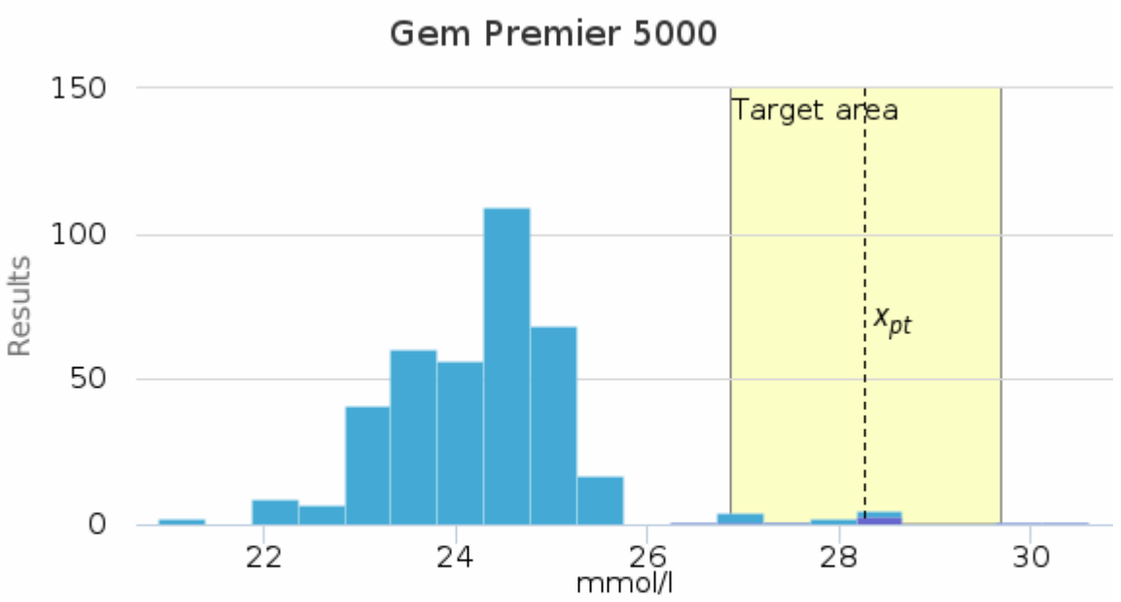
All method groups | epoc Blood Analysis System (x_{pt}: 23.7 | Target area: 22.6-24.9 | Target: ±5%)

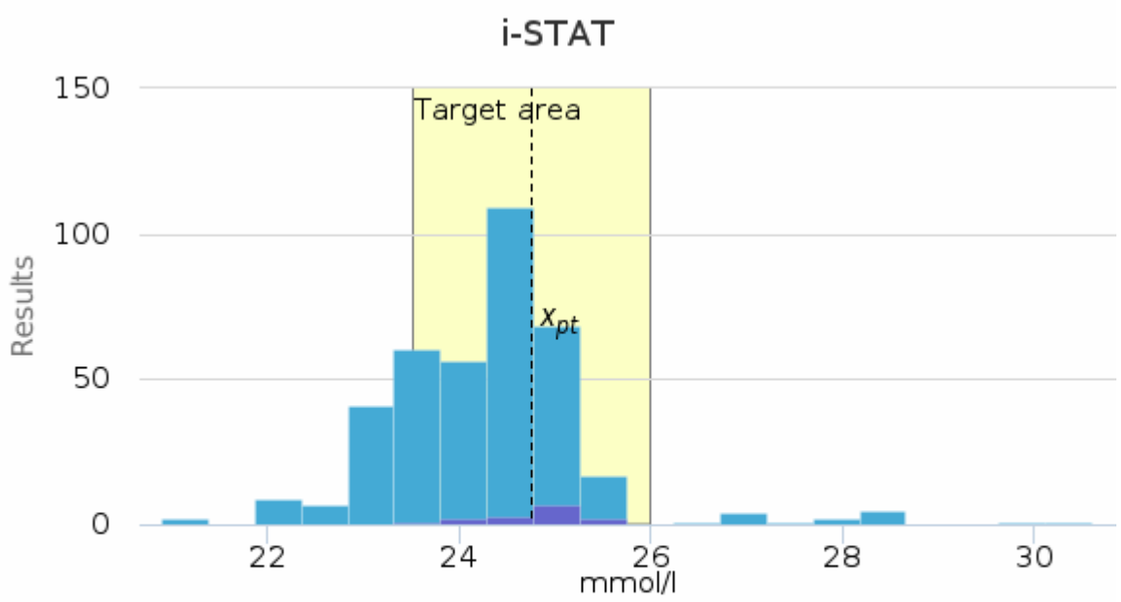




All method groups | Gem Premier 3000-3500 (x_{pt}: 27.7 | Target area: 26.3-29.0 | Target: ±5%)

All method groups | Gem Premier 4000 (x_{pt}: 27.0 | Target area: 25.7-28.4 | Target: ±5%)

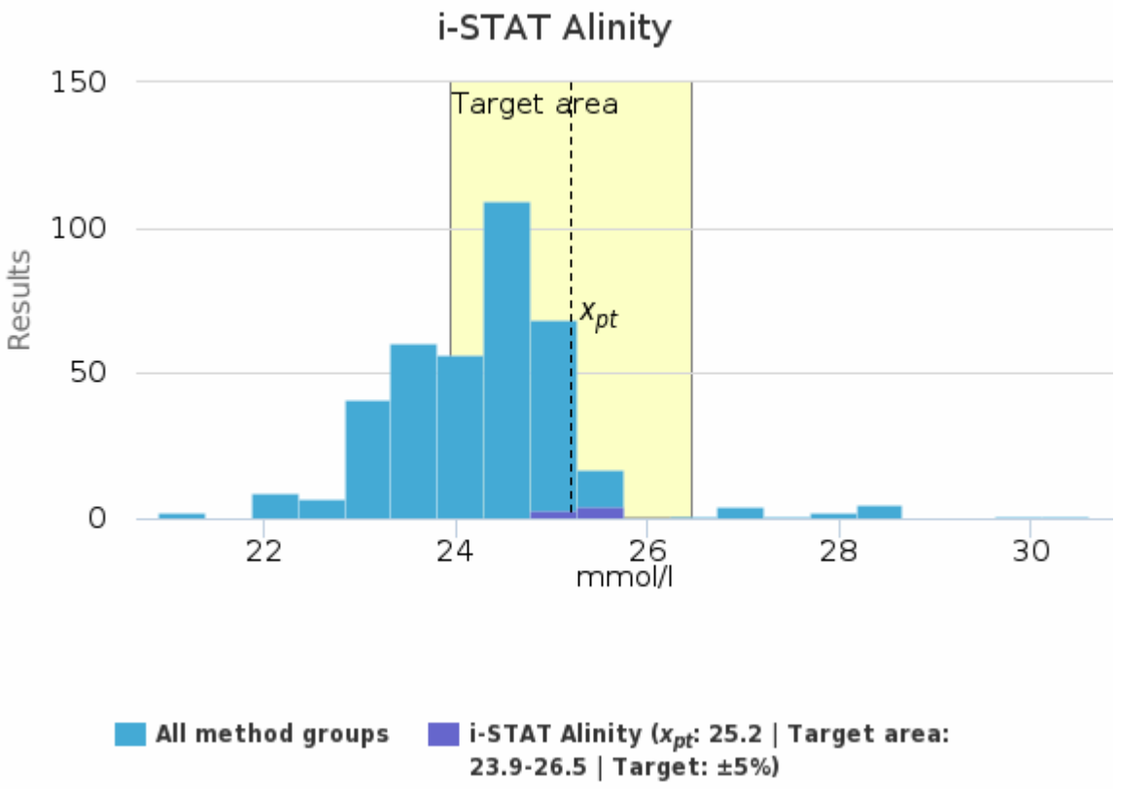


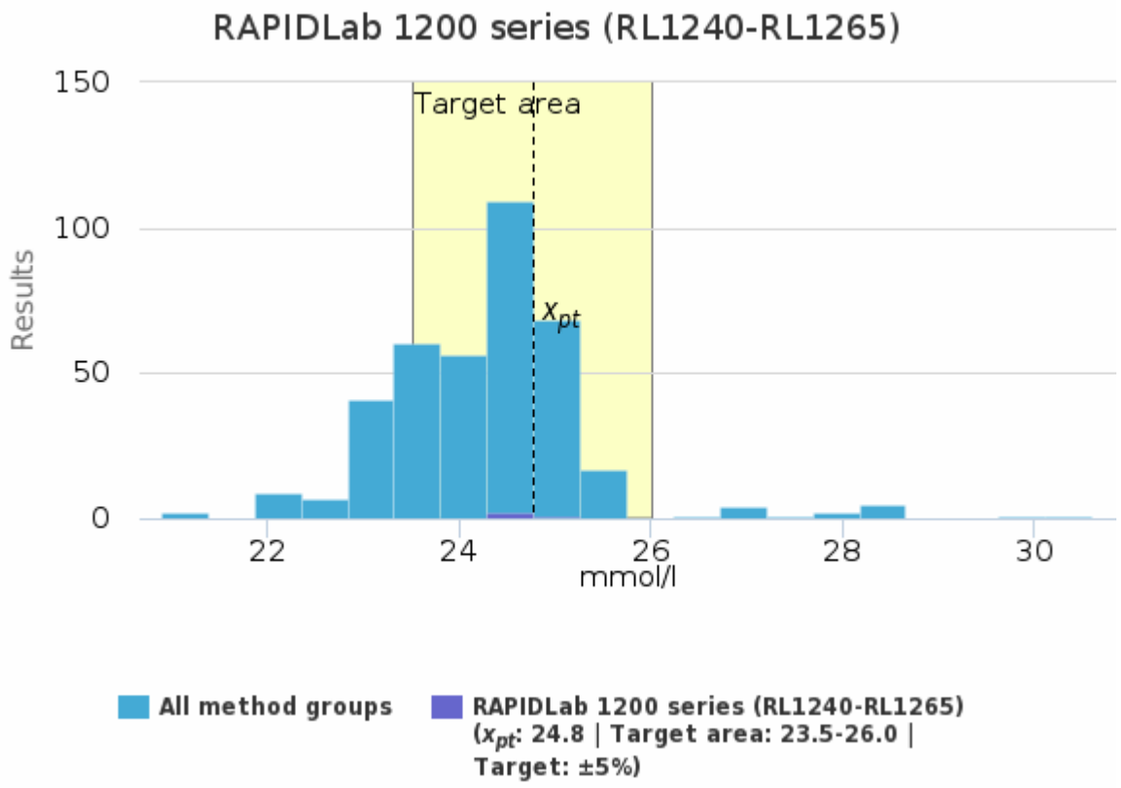


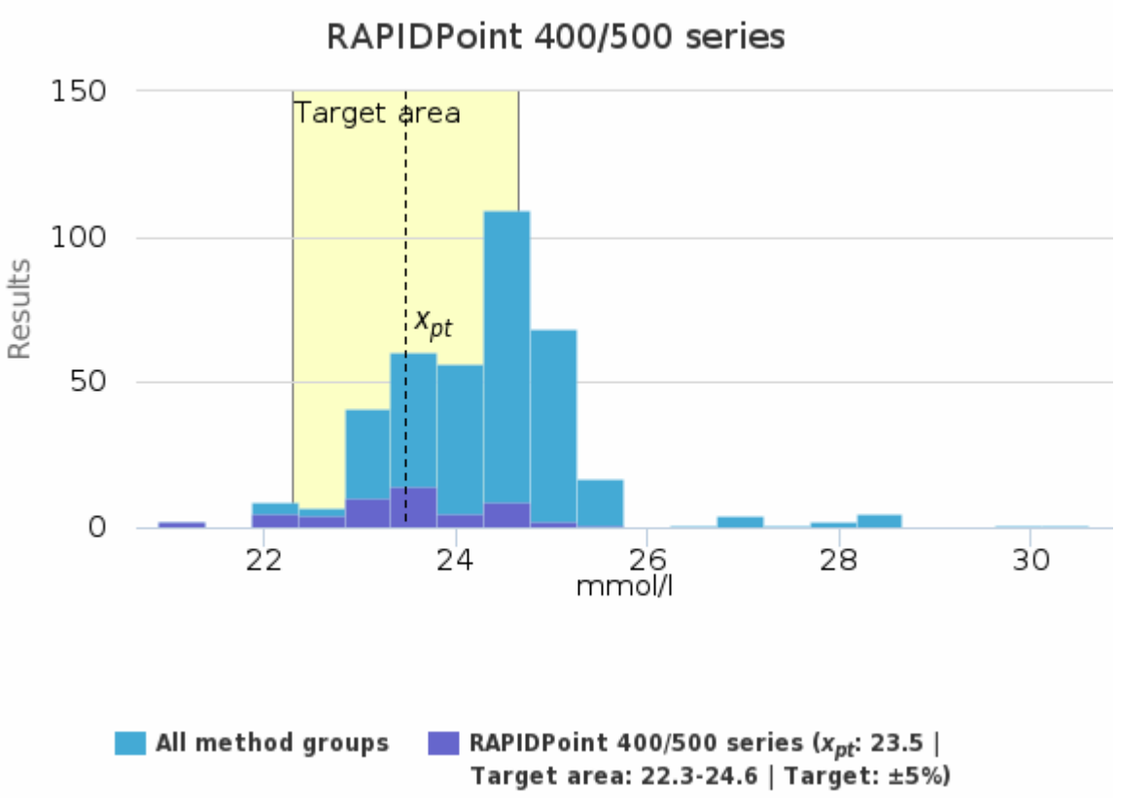
All method groups | Gem Premier 5000 (x_{pt}: 28.3 | Target area: 26.9-29.7 | Target: ±5%)

All method groups | i-STAT (x_{pt}: 24.7 | Target area: 23.5-26.0 | Target: ±5%)

Acid-base status and electrolytes, February, 1-2023



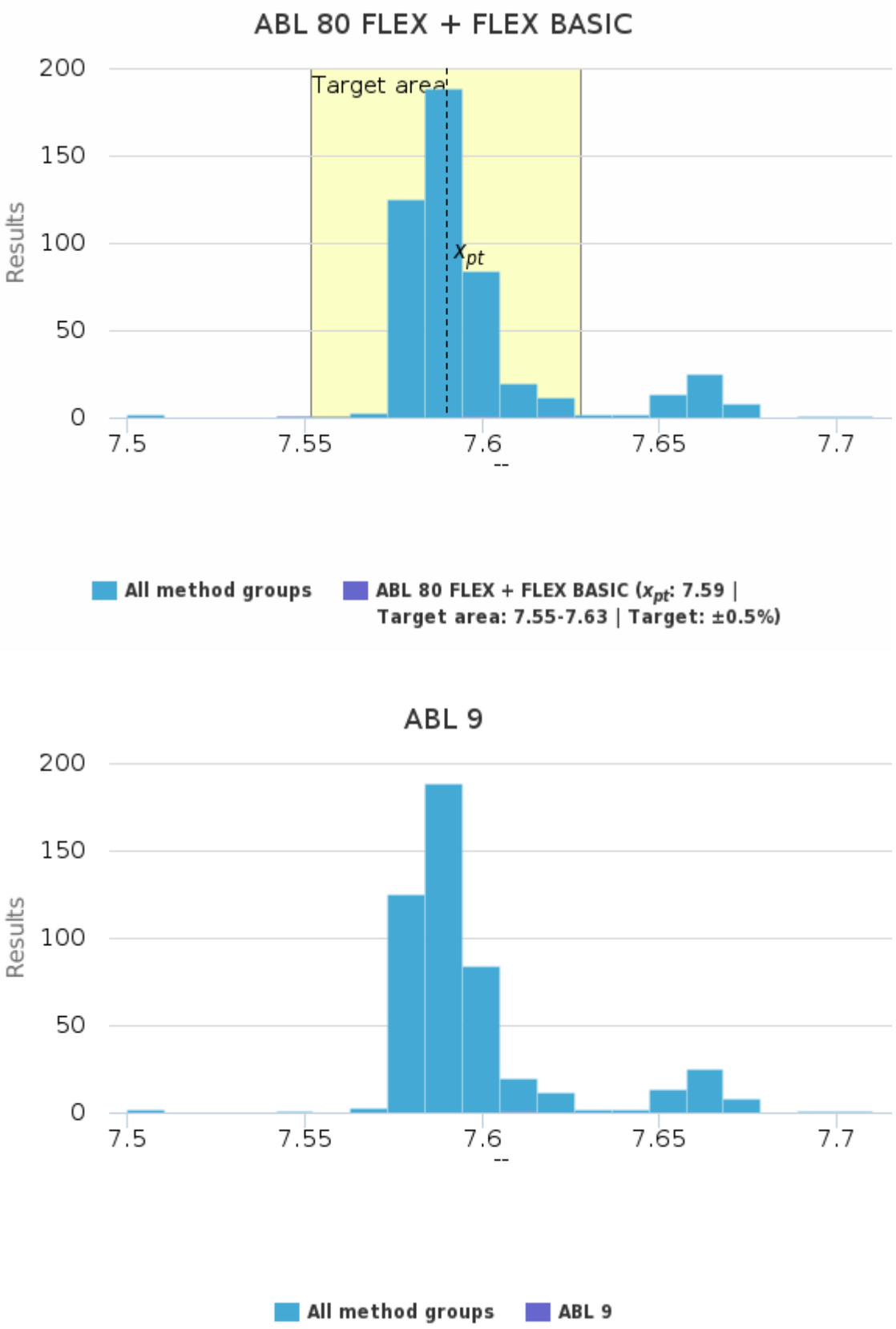


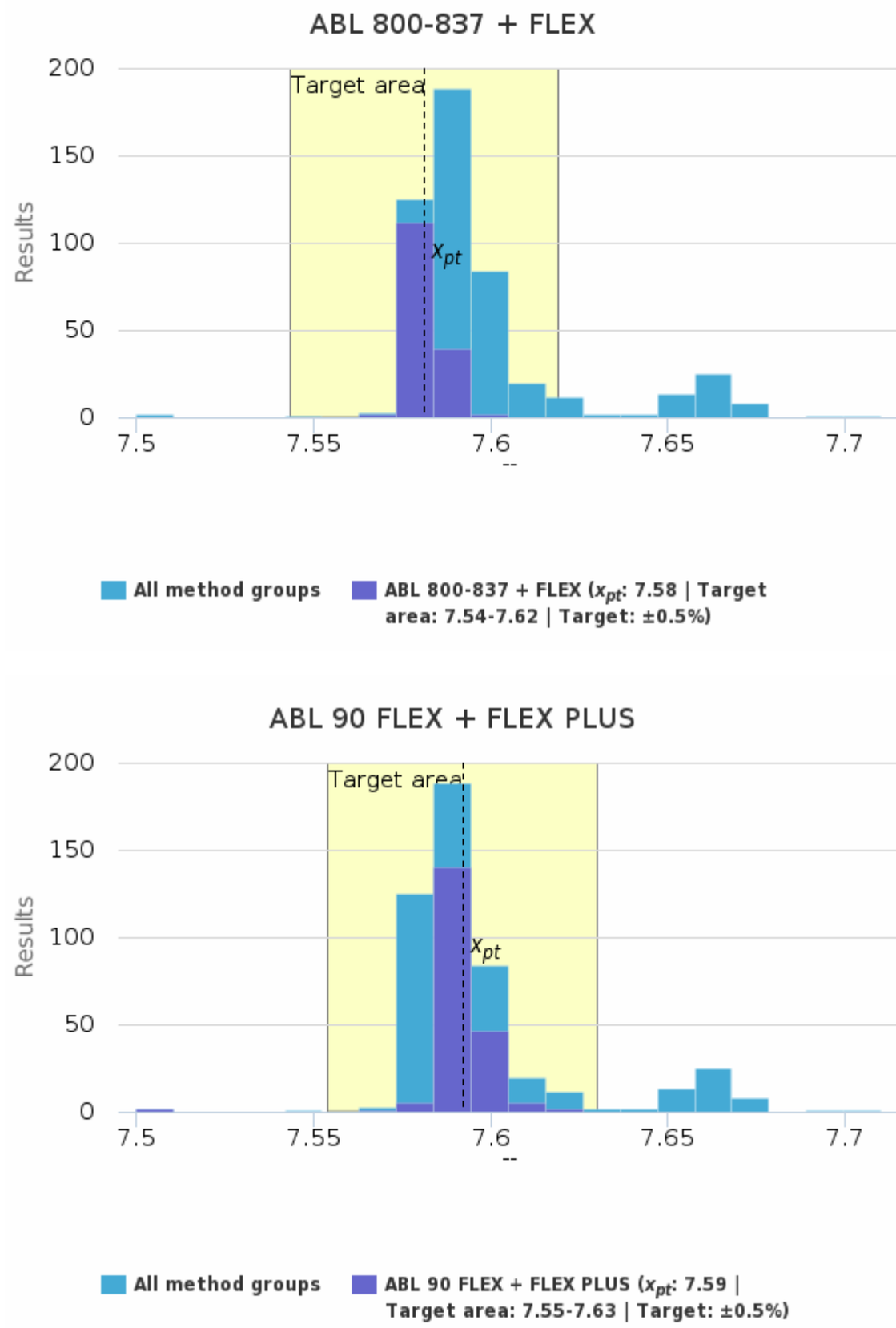


Sample S003 | pH, --

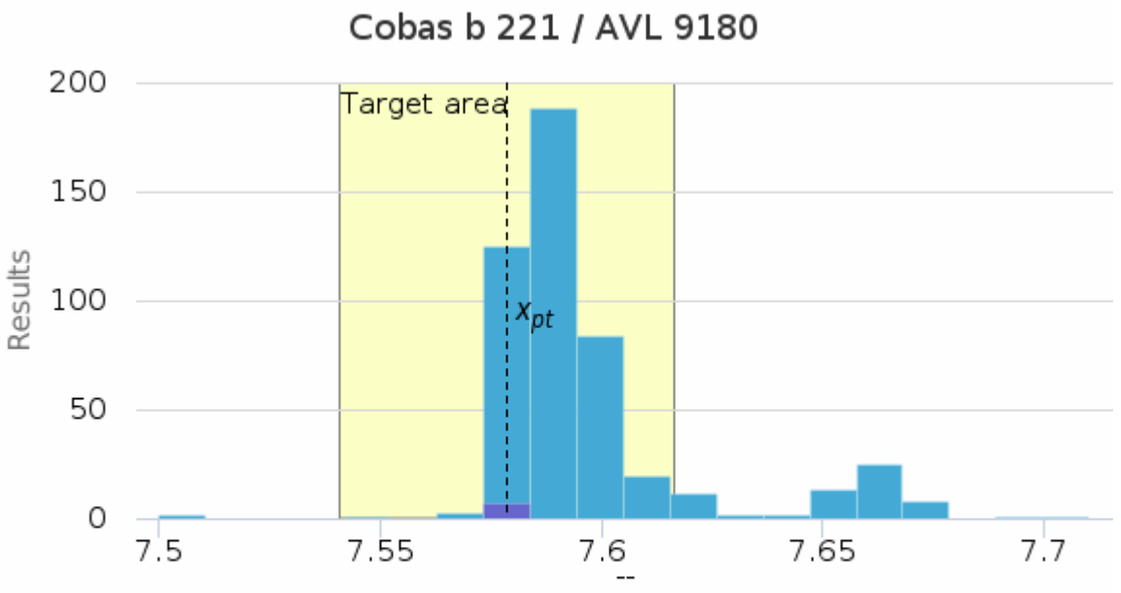
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	7.59	7.60	0.04	0.5	0.02	7.55	7.62	-	3
ABL 800-837 + FLEX	7.58	7.58	<0.01	<0.1	<0.01	7.57	7.59	2	155
ABL 9	-	-	-	-	-	7.61	7.61	-	1
ABL 90 FLEX + FLEX PLUS	7.59	7.59	<0.01	<0.1	<0.01	7.57	7.62	2	201
Cobas b 221 / AVL 9180	7.58	7.58	<0.01	<0.1	<0.01	7.57	7.58	-	7
epoc Blood Analysis System	7.62	7.62	0.01	0.1	<0.01	7.60	7.63	-	8
Gem Premier 3000-3500	7.66	7.66	<0.01	0.1	<0.01	7.65	7.67	-	10
Gem Premier 4000	7.68	7.67	0.02	0.3	0.01	7.66	7.71	-	4
Gem Premier 5000	7.66	7.66	0.01	0.2	<0.01	7.64	7.69	-	10
i-STAT	7.66	7.66	<0.01	<0.1	<0.01	7.64	7.66	1	19
i-STAT Alinity	7.66	7.67	<0.01	<0.1	<0.01	7.66	7.67	-	8
Nova 8	-	-	-	-	-	7.61	7.61	-	1
RAPIDLab 1200 series (RL1240-RL1265)	7.61	7.60	0.02	0.2	<0.01	7.60	7.63	-	3
RAPIDLab 348/348EX	-	-	-	-	-	7.62	7.62	-	1
RAPIDPoint 400/500 series	7.60	7.60	<0.01	0.1	<0.01	7.58	7.62	-	56
All	**7.60**	**7.59**	**0.02**	**0.3**	**<0.01**	**7.55**	**7.66**	**15**	**487**

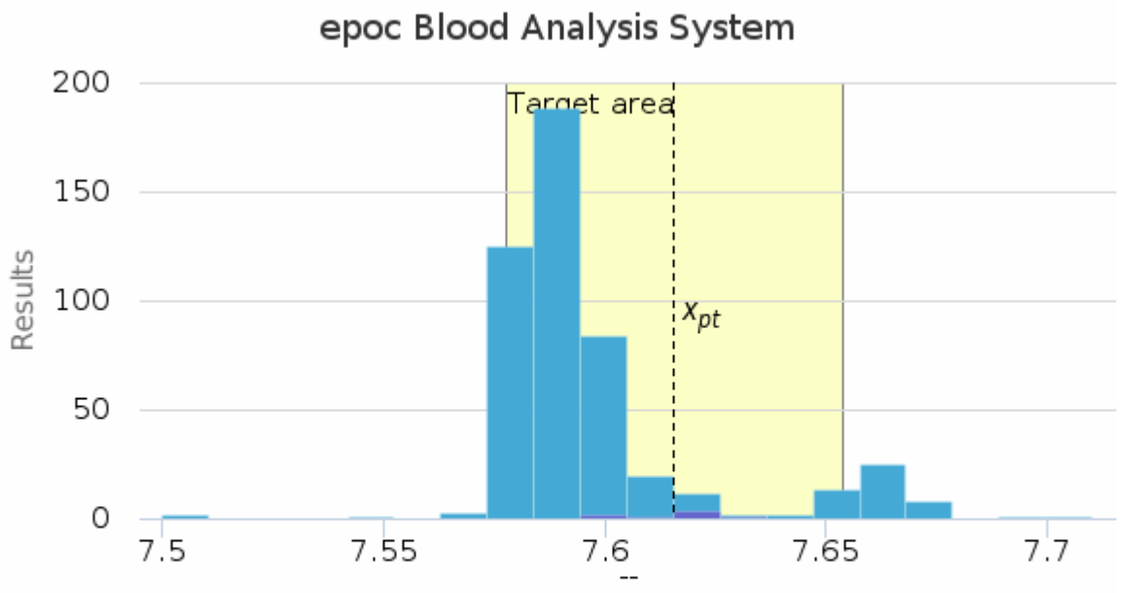
Sample S003 | pH, --| histogram summaries in LabScala





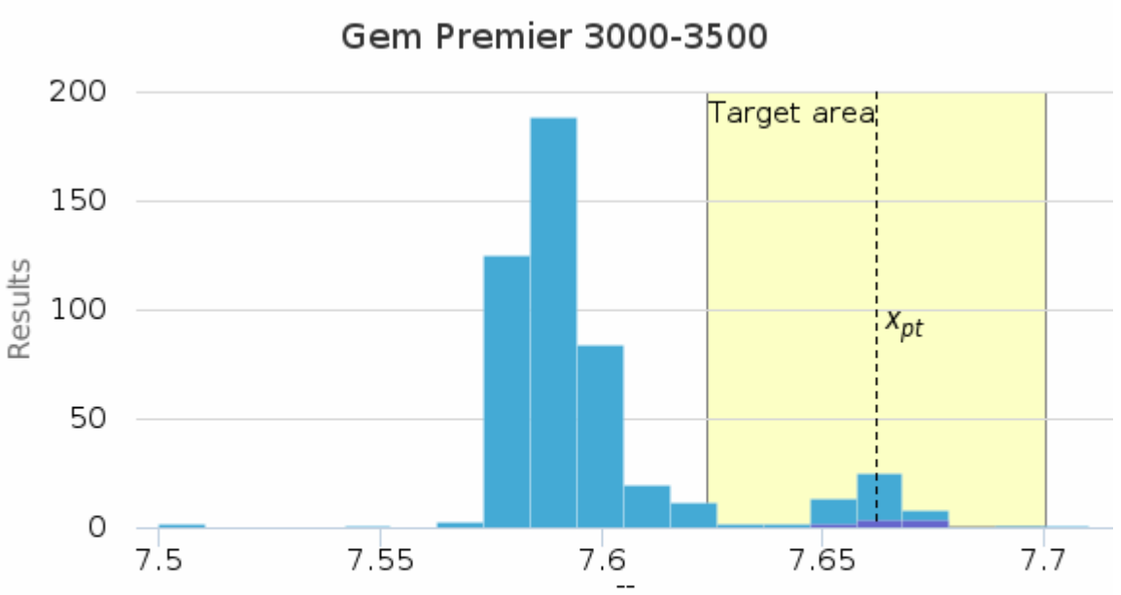
Acid-base status and electrolytes, February, 1-2023

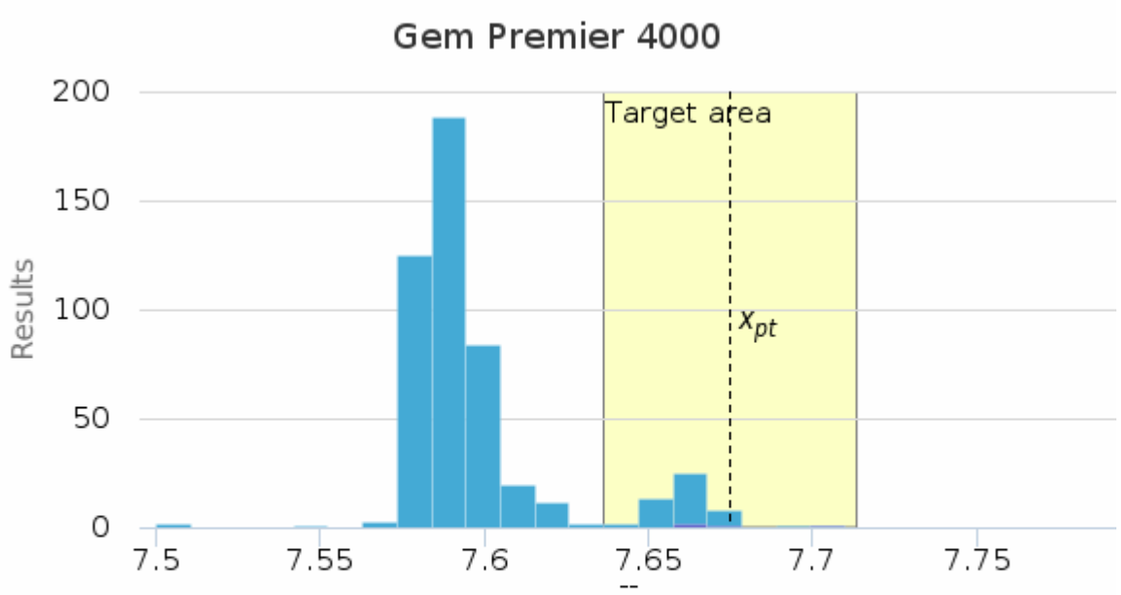




All method groups | Cobas b 221 / AVL 9180 (x_{pt}: 7.58 | Target area: 7.54-7.62 | Target: ±0.5%)

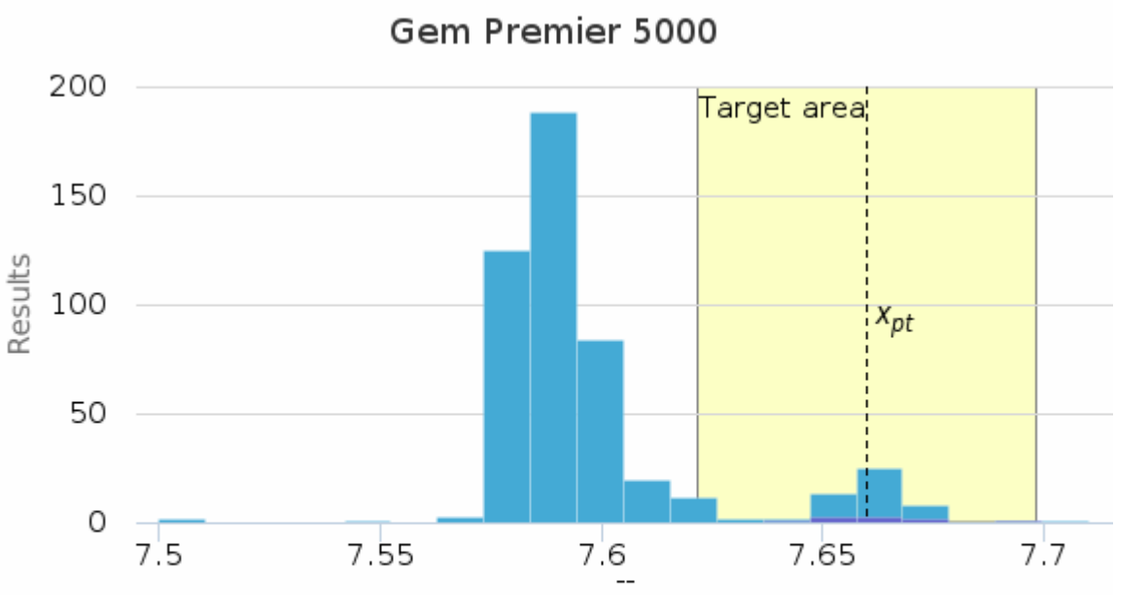
All method groups | epoc Blood Analysis System (x_{pt}: 7.62 | Target area: 7.58-7.65 | Target: ±0.5%)

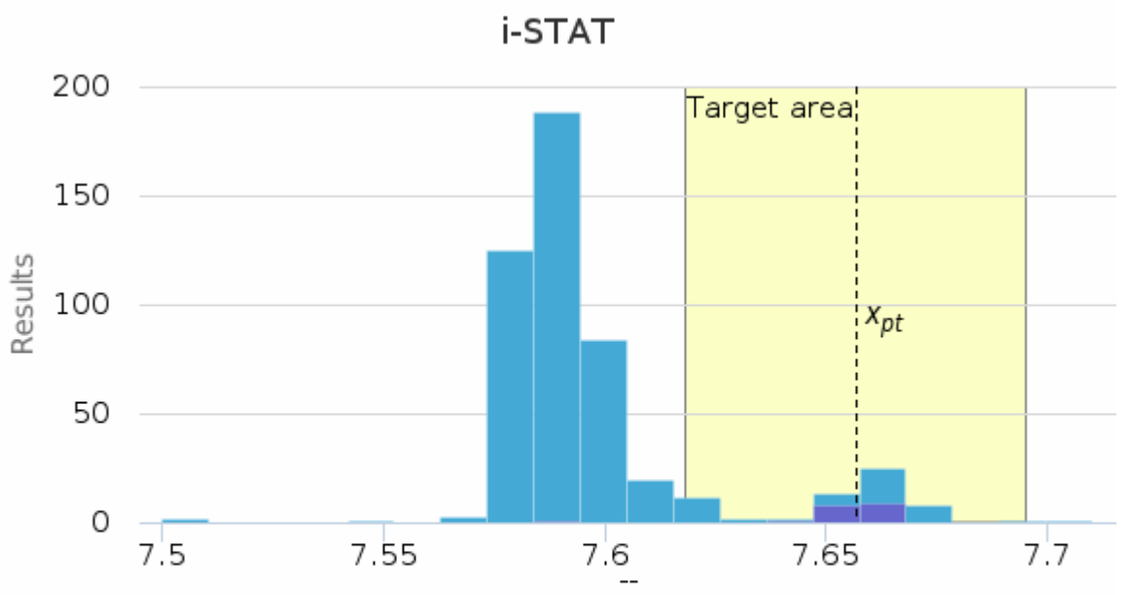




All method groups | Gem Premier 3000-3500 (x_{pt}: 7.66 | Target area: 7.62-7.70 | Target: ±0.5%)

All method groups | Gem Premier 4000 (x_{pt}: 7.68 | Target area: 7.64-7.71 | Target: ±0.5%)

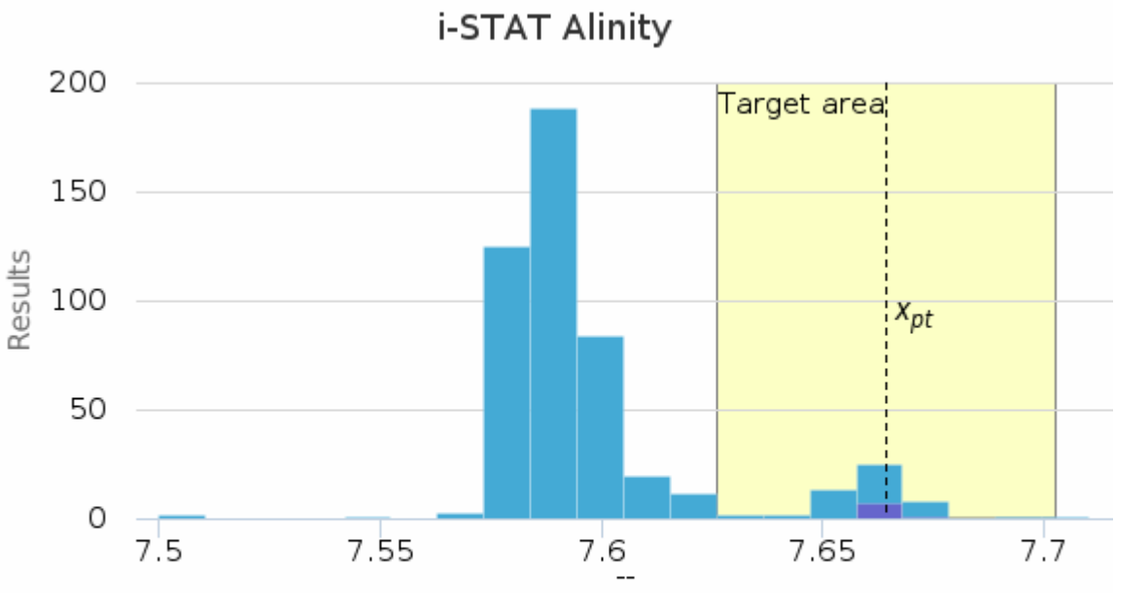


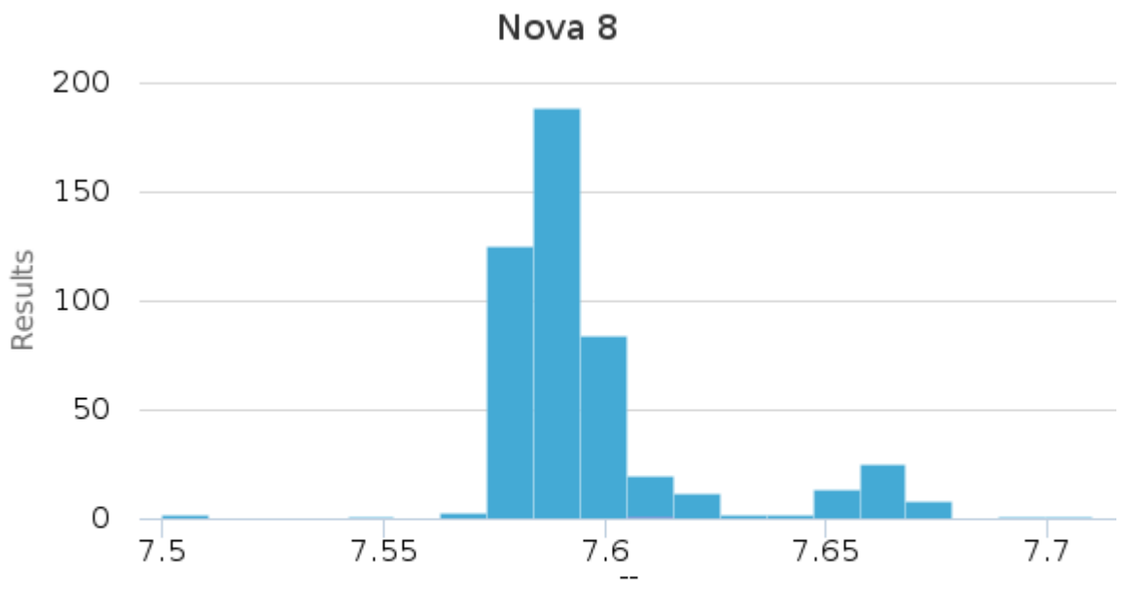


All method groups | Gem Premier 5000 (x_{pt}: 7.66 | Target area: 7.62-7.70 | Target: ±0.5%)

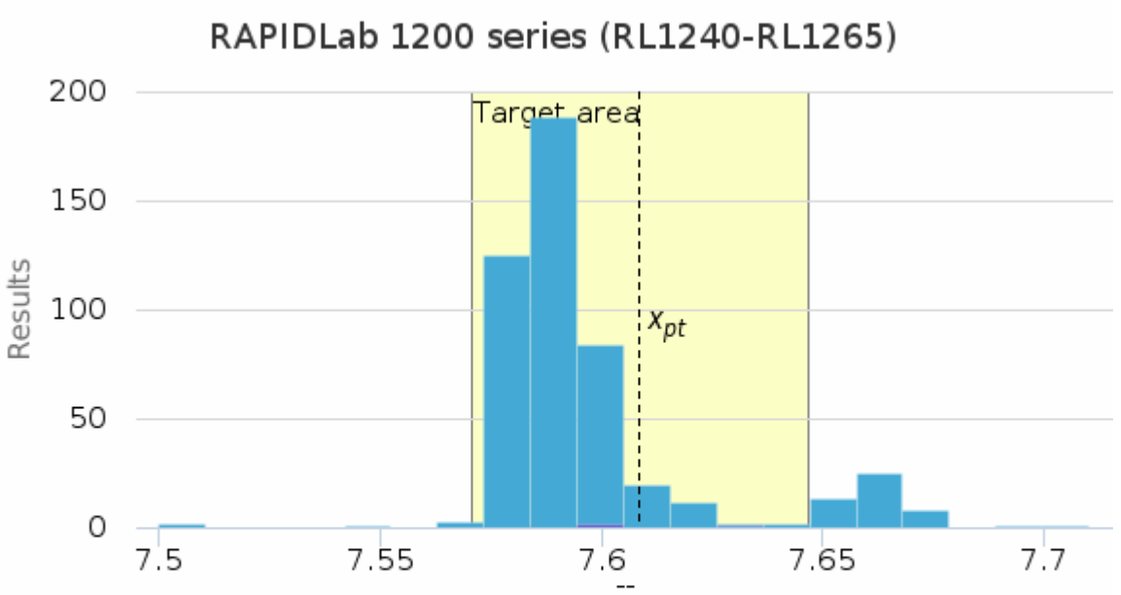
All method groups | i-STAT (x_{pt}: 7.66 | Target area: 7.62-7.69 | Target: ±0.5%)

Acid-base status and electrolytes, February, 1-2023

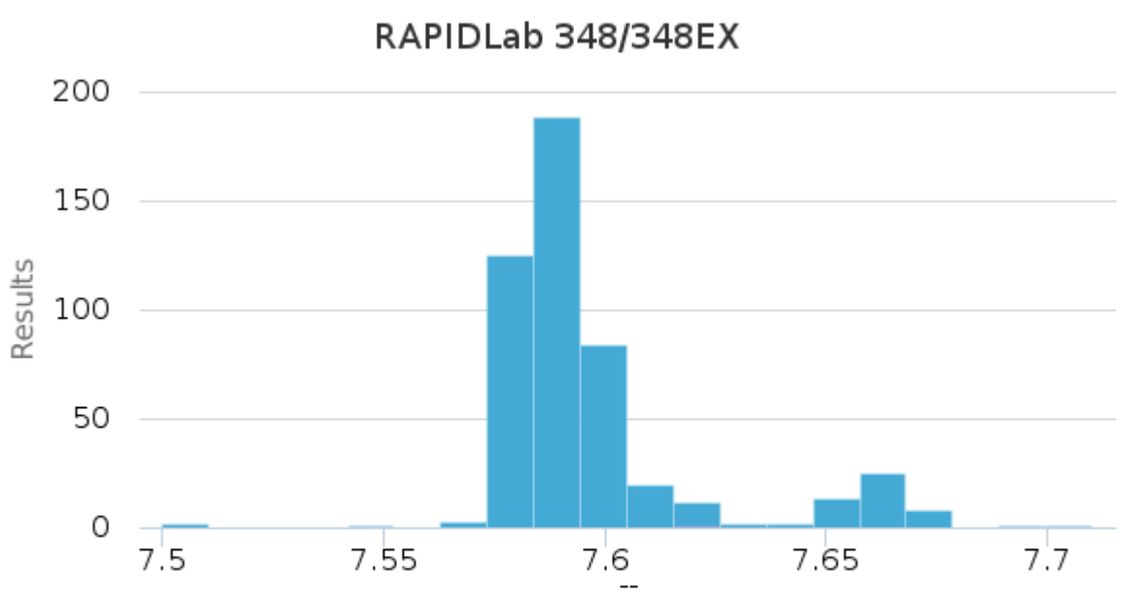




All method groups
i-STAT Alinity (x_{pt}: 7.66 | Target area: 7.63-7.70 | Target: ±0.5%)

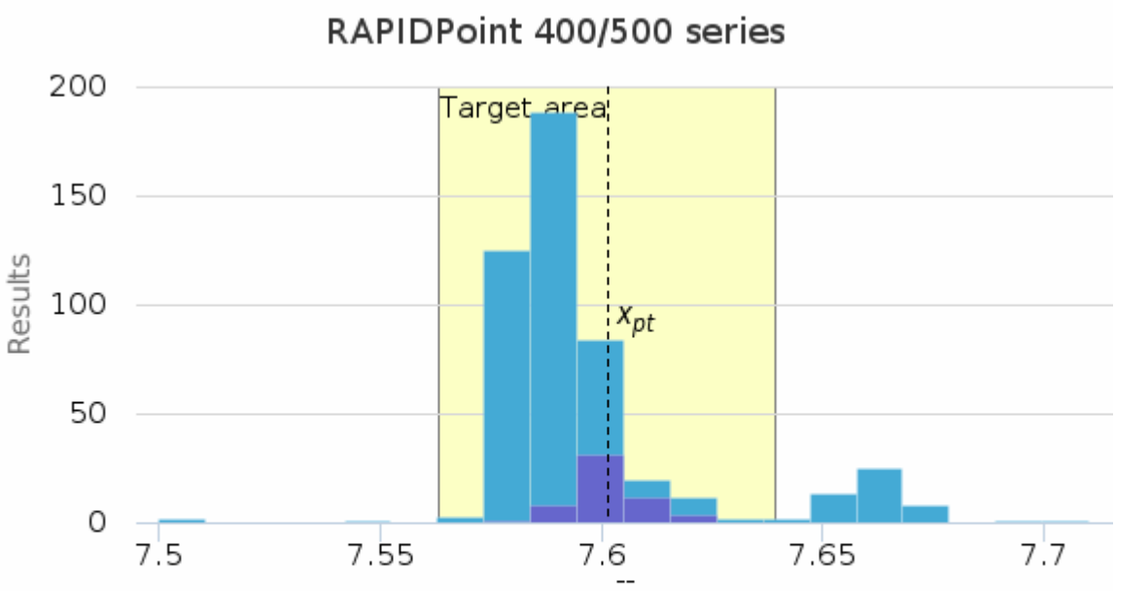


All method groups
Nova 8



All method groups
RAPIDLab 1200 series (RL1240-RL1265) (x_{pt}: 7.61 | Target area: 7.57-7.65 | Target: ±0.5%)

All method groups
RAPIDLab 348/348EX

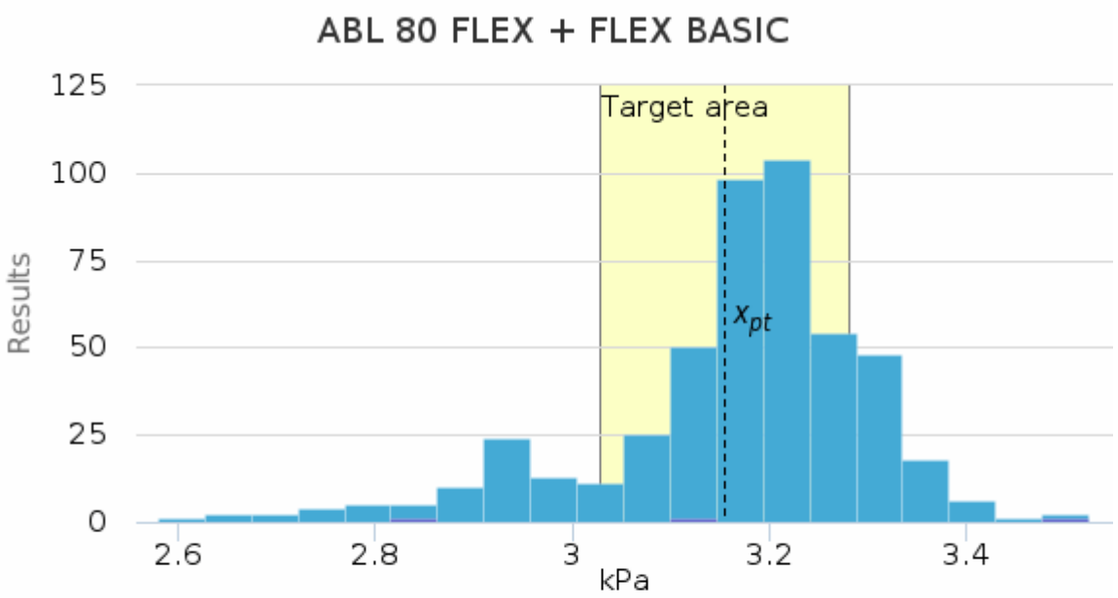


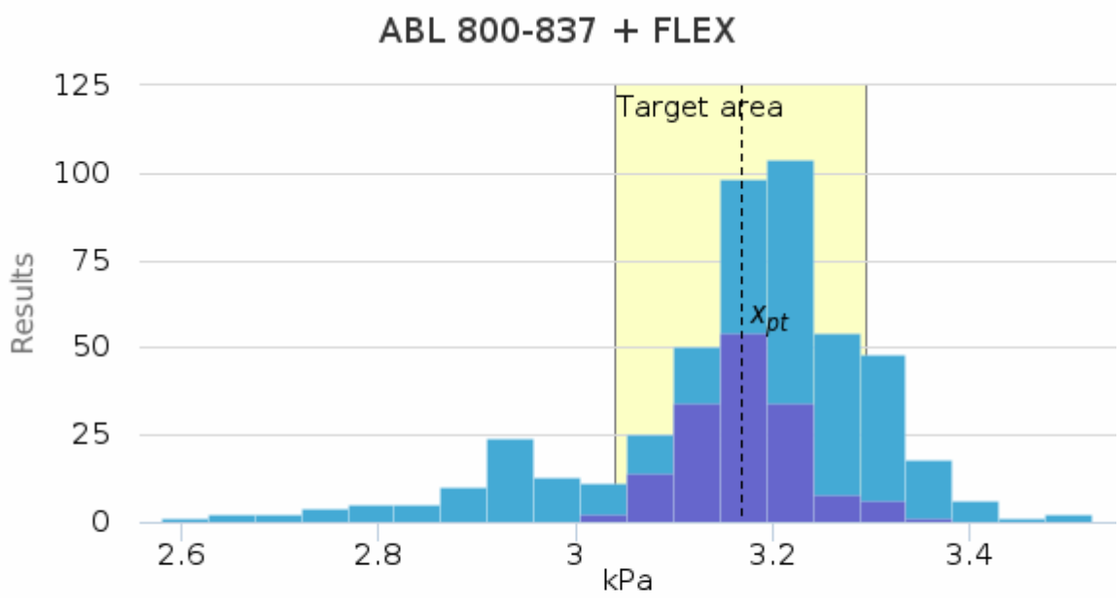
All method groups
RAPIDPoint 400/500 series (x_{pt}: 7.60 | Target area: 7.56-7.64 | Target: ±0.5%)

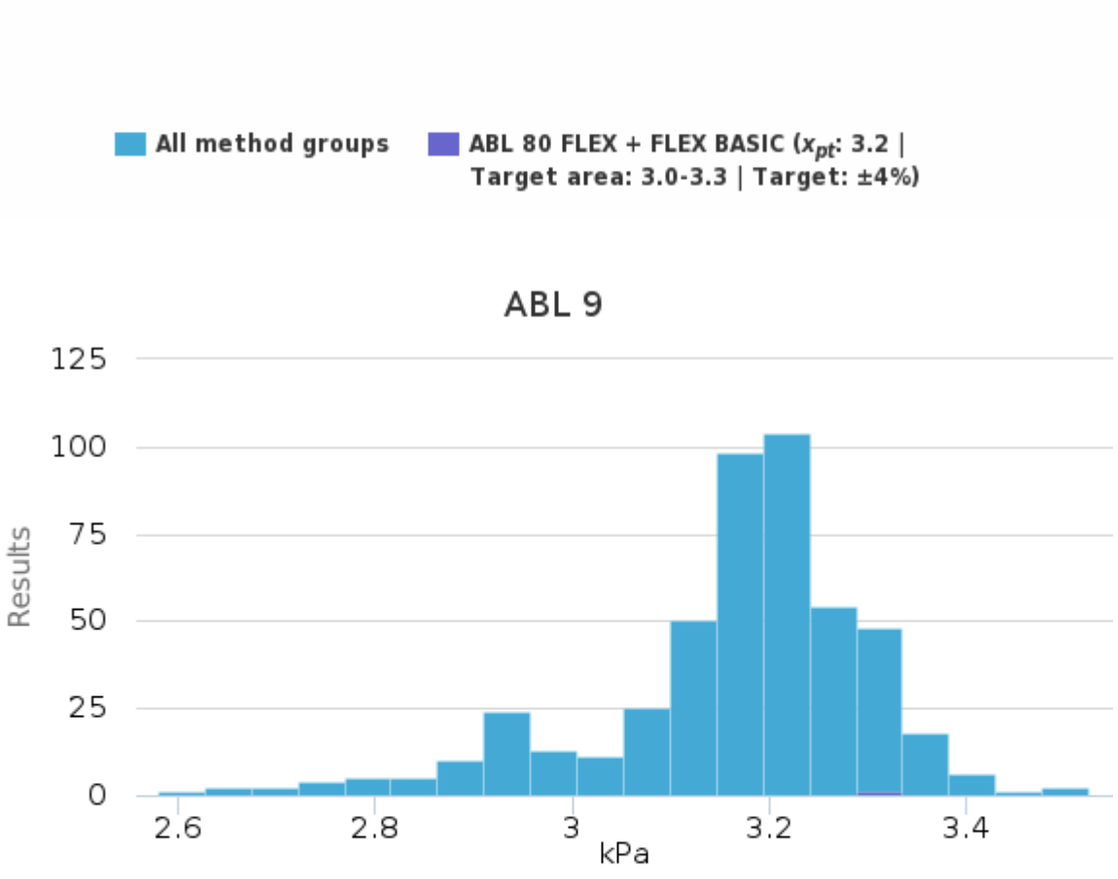
Sample S003 | CO2, kPa

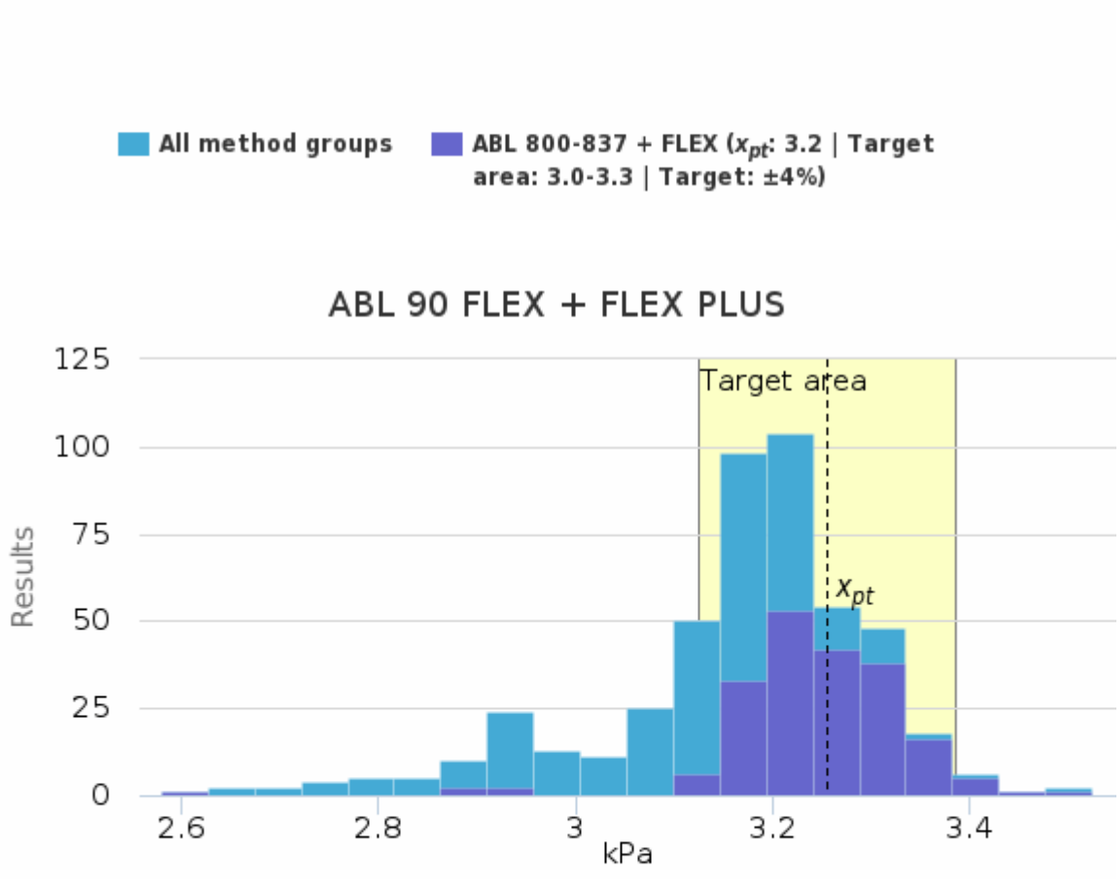
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	3.2	3.1	0.4	11.2	0.2	2.8	3.5	-	3
ABL 800-837 + FLEX	3.2	3.2	<0.1	1.8	<0.1	3.0	3.3	1	153
ABL 9	-	-	-	-	-	3.3	3.3	-	1
ABL 90 FLEX + FLEX PLUS	3.3	3.3	<0.1	2.1	<0.1	3.1	3.5	5	200
Cobas b 221 / AVL 9180	3.2	3.2	<0.1	1.1	<0.1	3.2	3.2	-	7
epoc Blood Analysis System	2.8	2.9	0.1	4.1	<0.1	2.6	3.0	-	8
Gem Premier 3000-3500	3.0	2.9	<0.1	3.0	<0.1	2.9	3.2	-	10
Gem Premier 4000	3.0	3.0	0.1	4.5	<0.1	2.9	3.2	-	4
Gem Premier 5000	3.1	3.2	<0.1	3.0	<0.1	2.9	3.2	-	10
i-STAT	3.0	3.0	0.1	3.9	<0.1	2.8	3.2	-	19
i-STAT Alinity	3.0	3.0	<0.1	2.3	<0.1	2.9	3.1	-	8
RAPIDLab 1200 series (RL1240-RL1265)	3.1	3.0	0.3	8.4	0.2	2.9	3.4	-	3
RAPIDLab 348/348EX	-	-	-	-	-	2.9	2.9	-	1
RAPIDPoint 400/500 series	3.1	3.1	0.2	5.9	<0.1	2.6	3.4	-	56
All	**3.2**	**3.2**	**0.1**	**3.9**	**<0.1**	**2.8**	**3.5**	**9**	**483**

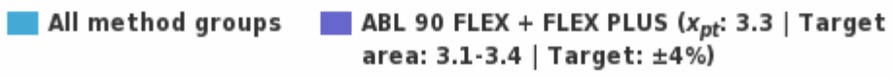
Sample S003 | CO2, kPa| histogram summaries in LabScala



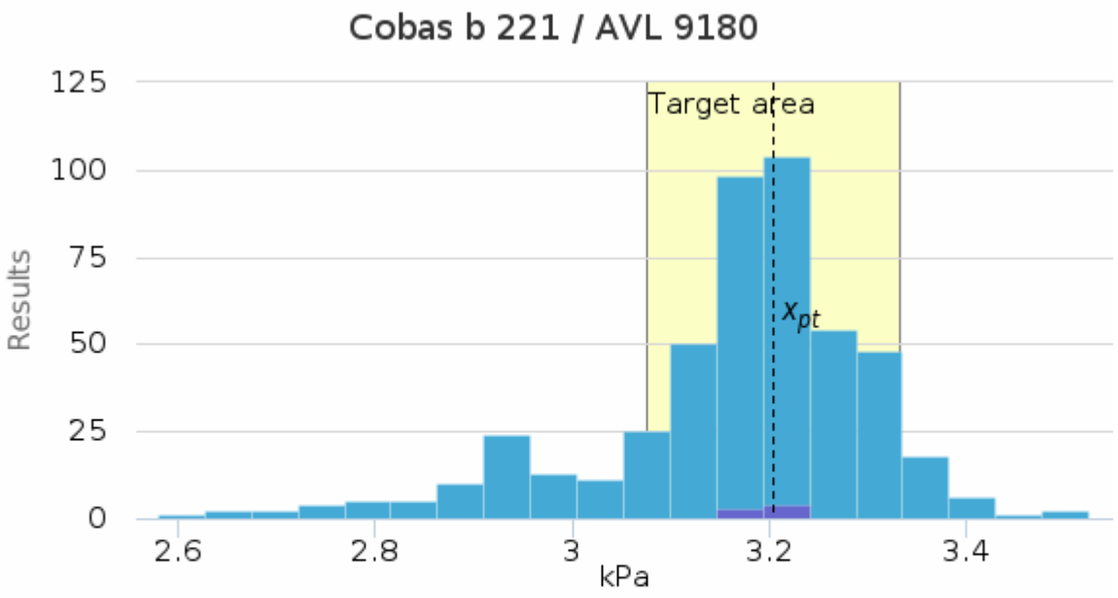


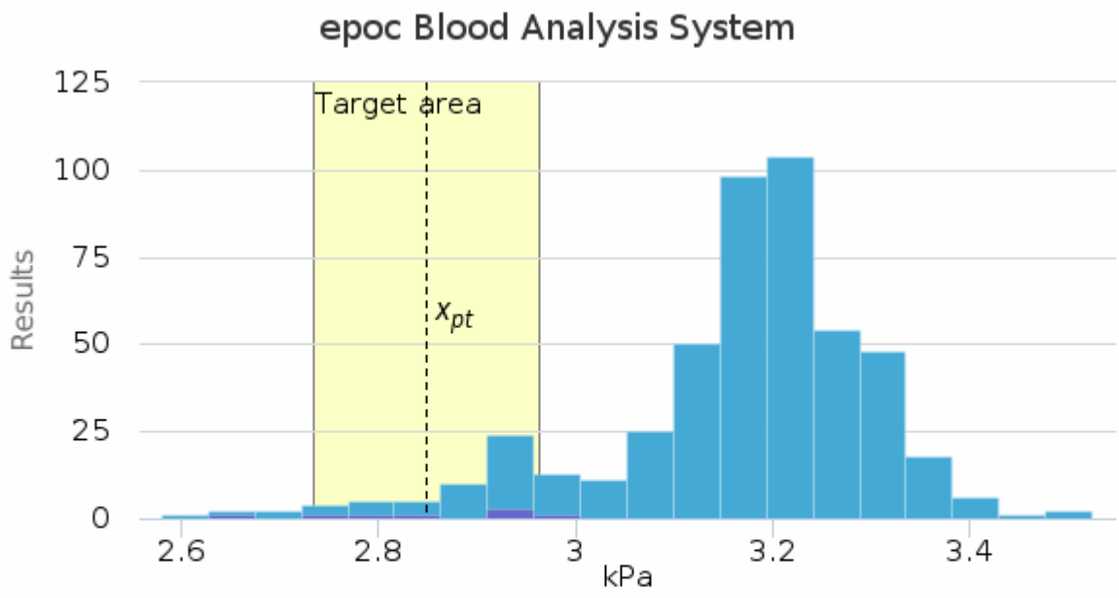




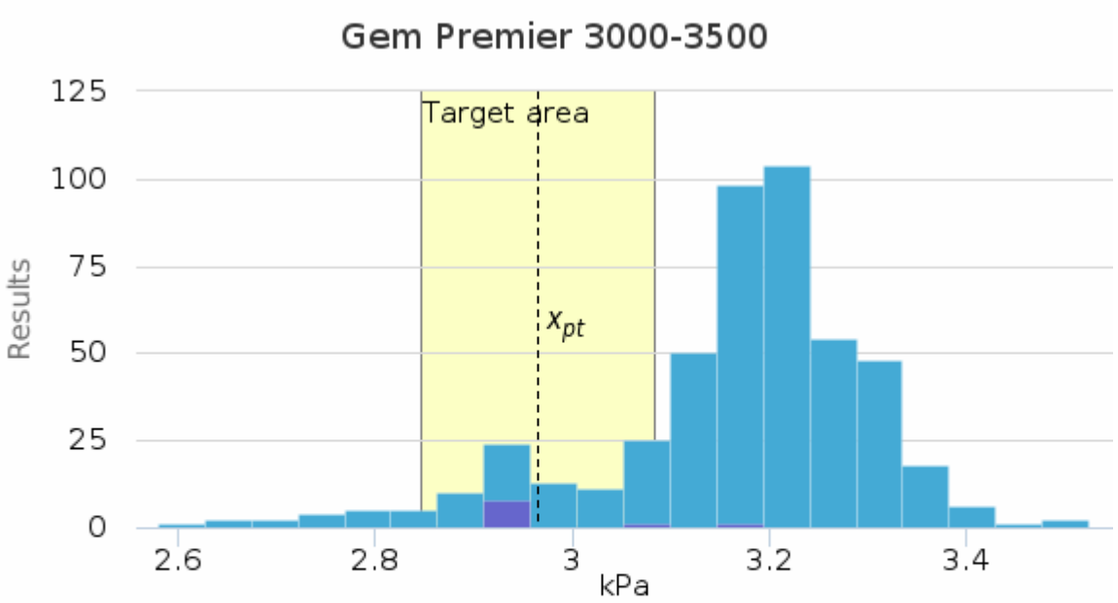


Acid-base status and electrolytes, February, 1-2023

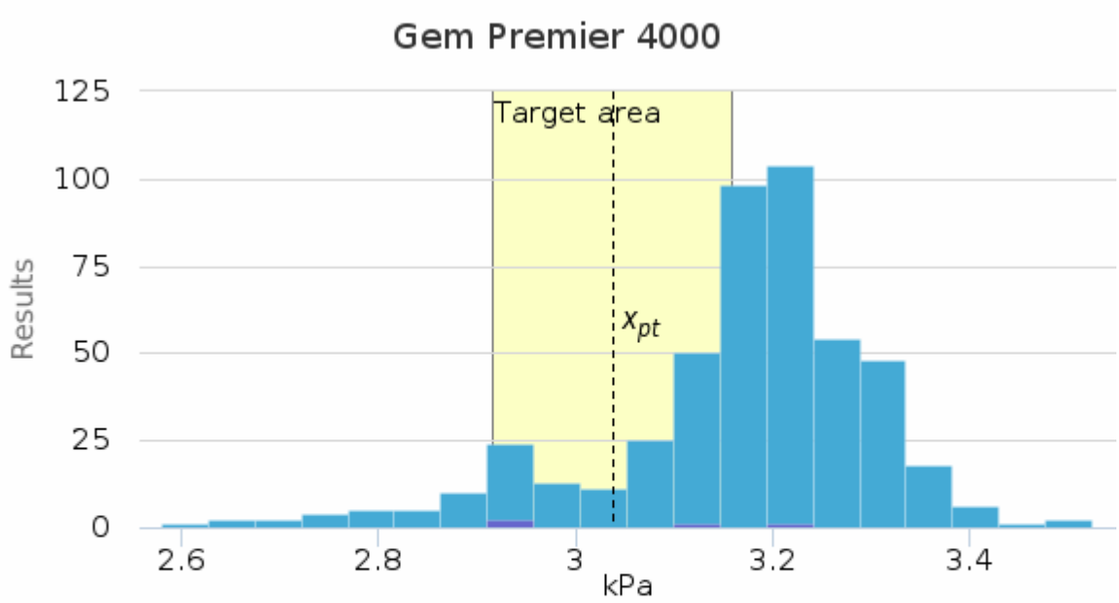




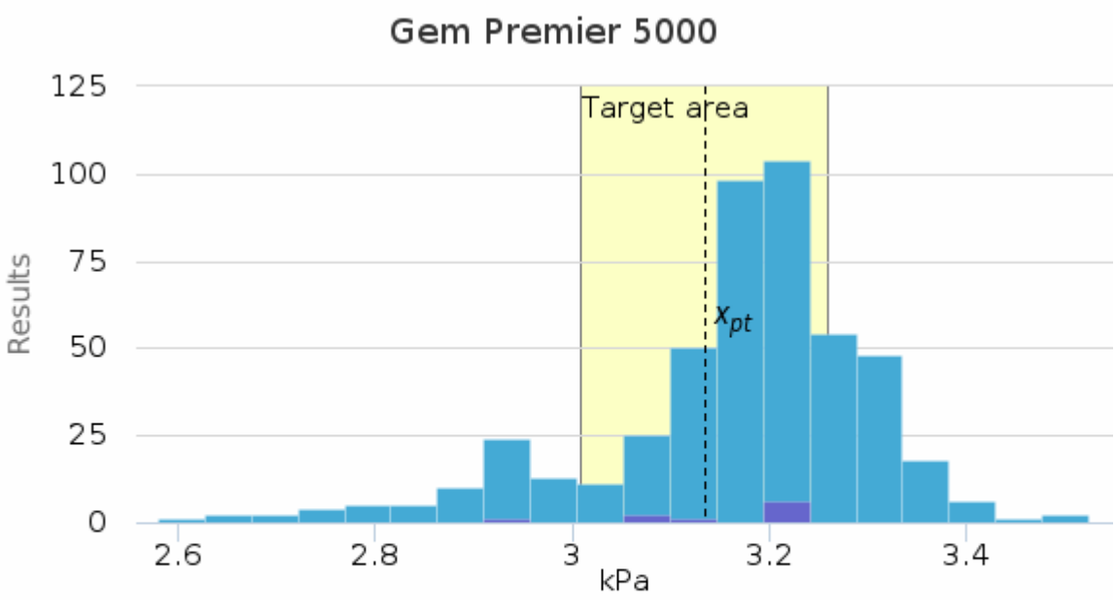
All method groups | Cobas b 221 / AVL 9180 (x_{pt}: 3.2 | Target area: 3.1-3.3 | Target: ±4%)



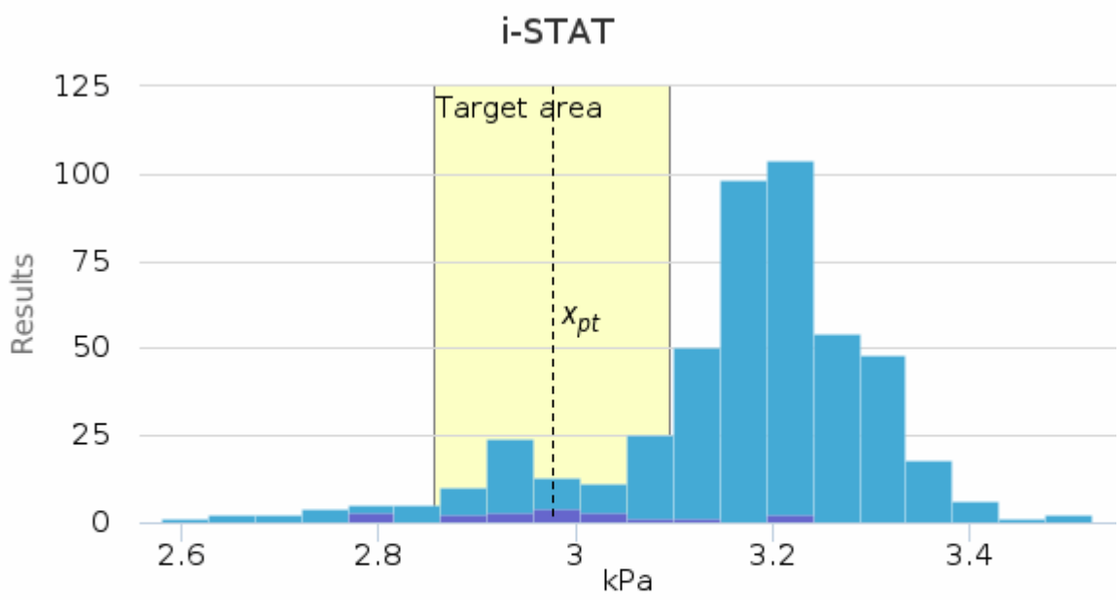
All method groups | epoc Blood Analysis System (x_{pt}: 2.8 | Target area: 2.7-3.0 | Target: ±4%)



All method groups | Gem Premier 3000-3500 (x_{pt}: 3.0 | Target area: 2.8-3.1 | Target: ±4%)



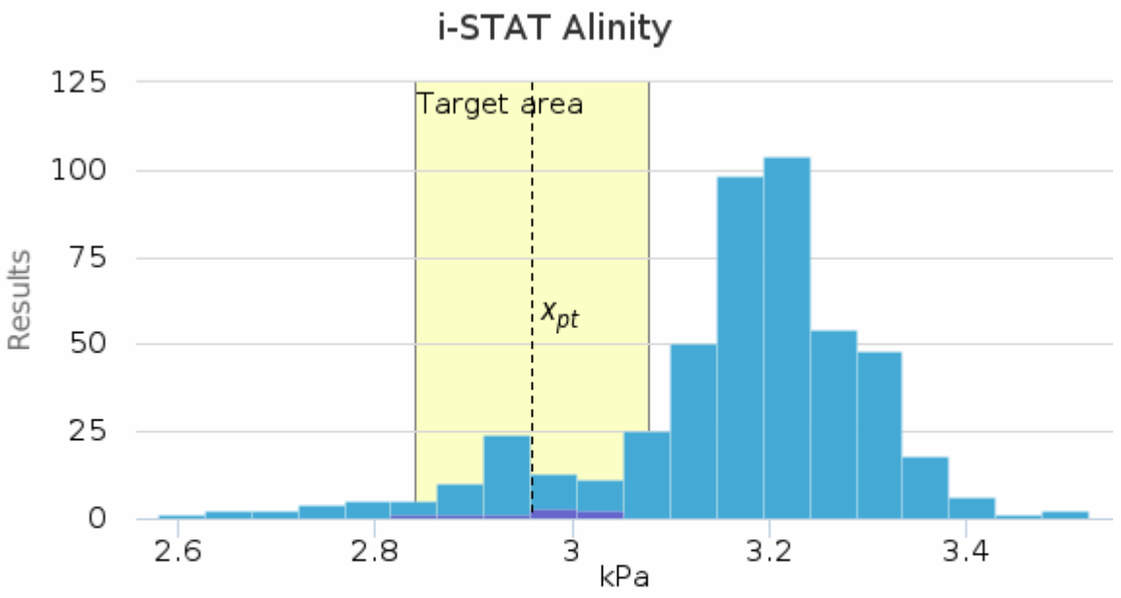
All method groups | Gem Premier 4000 (x_{pt}: 3.0 | Target area: 2.9-3.2 | Target: ±4%)

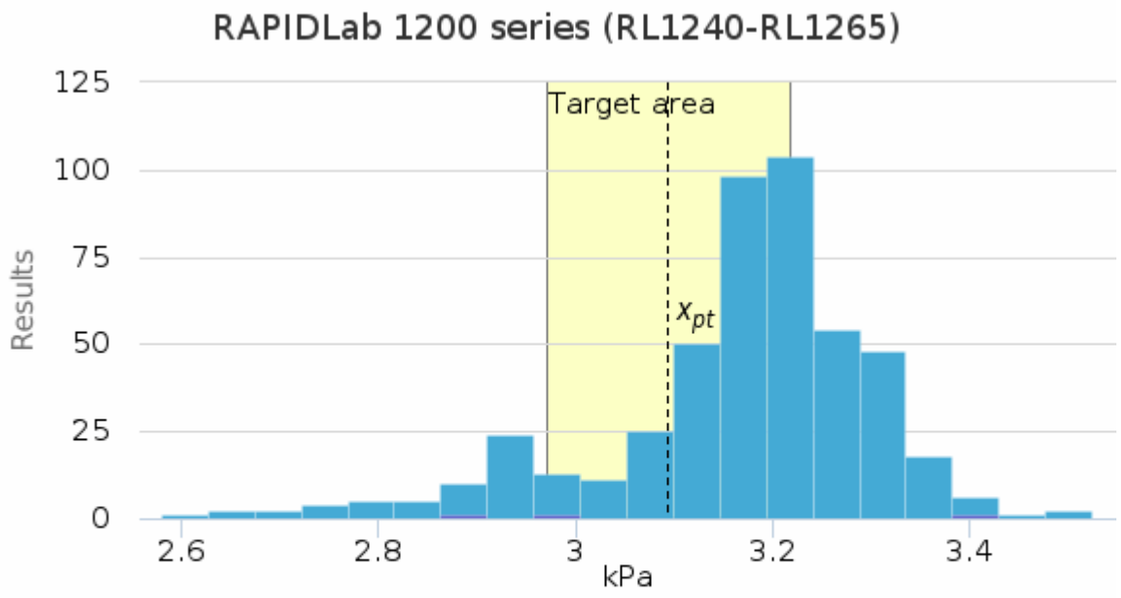


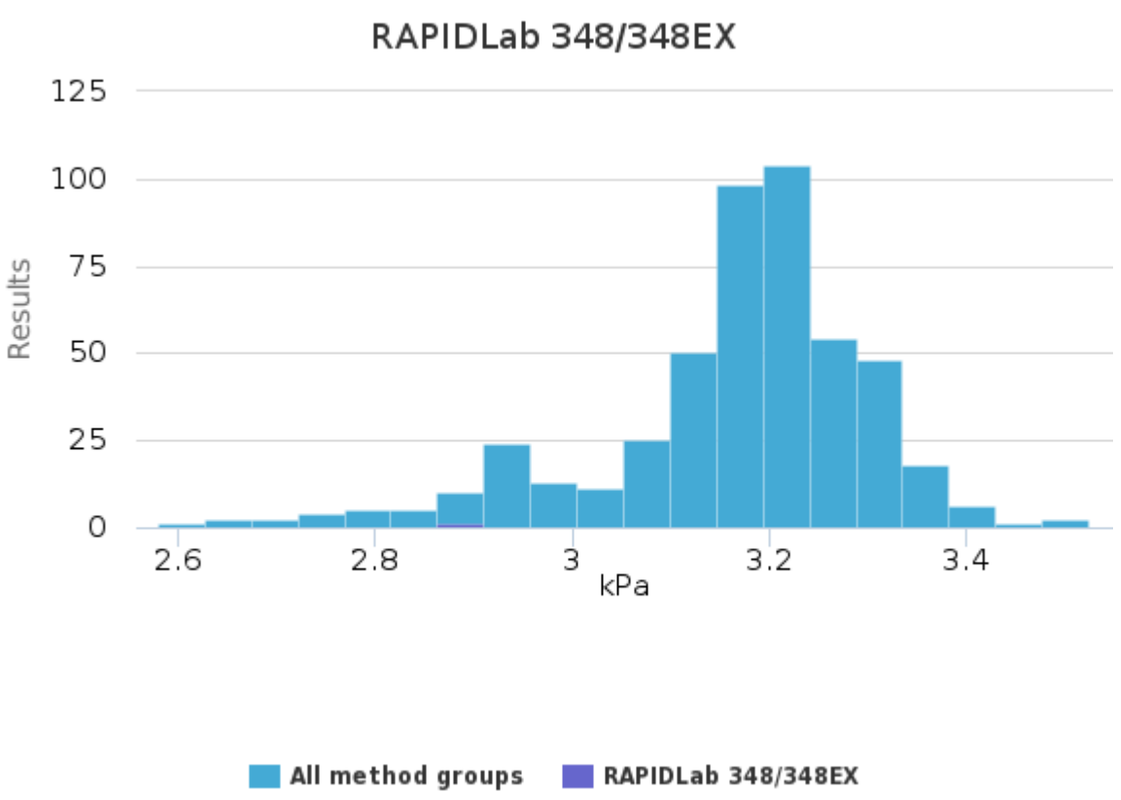
All method groups | Gem Premier 5000 (x_{pt}: 3.1 | Target area: 3.0-3.3 | Target: ±4%)

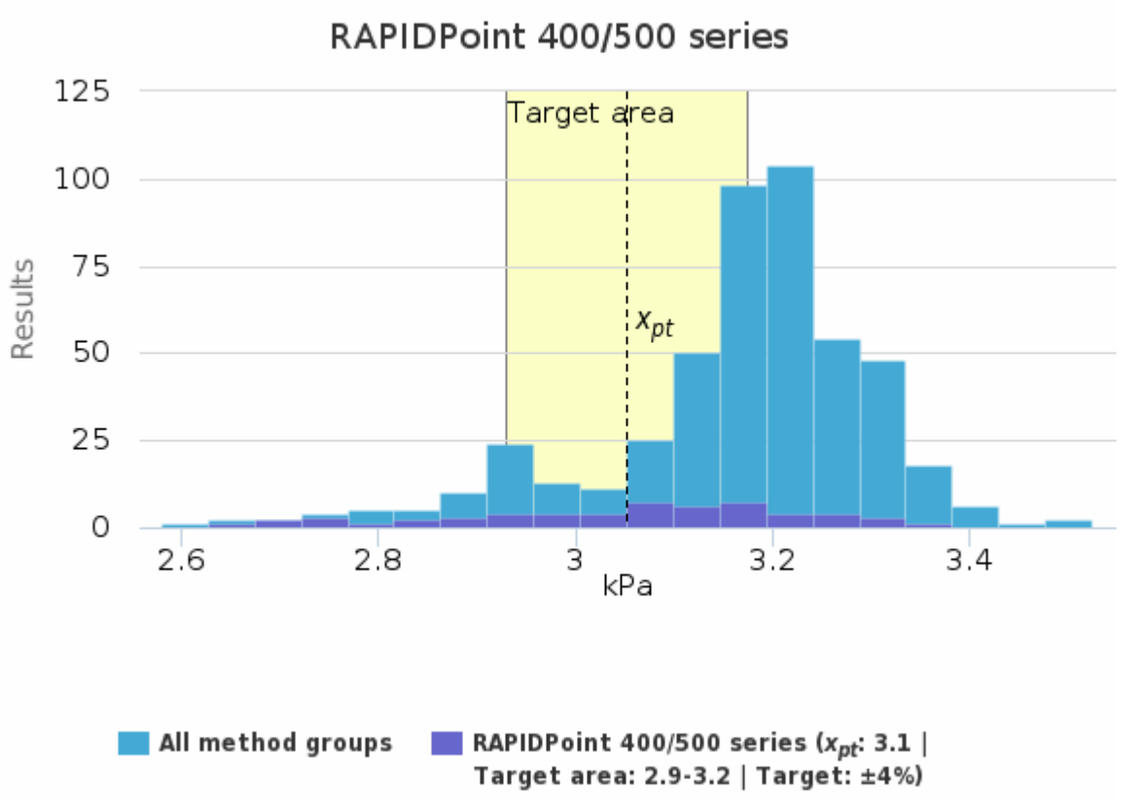
All method groups | i-STAT (x_{pt}: 3.0 | Target area: 2.9-3.1 | Target: ±4%)

Acid-base status and electrolytes, February, 1-2023





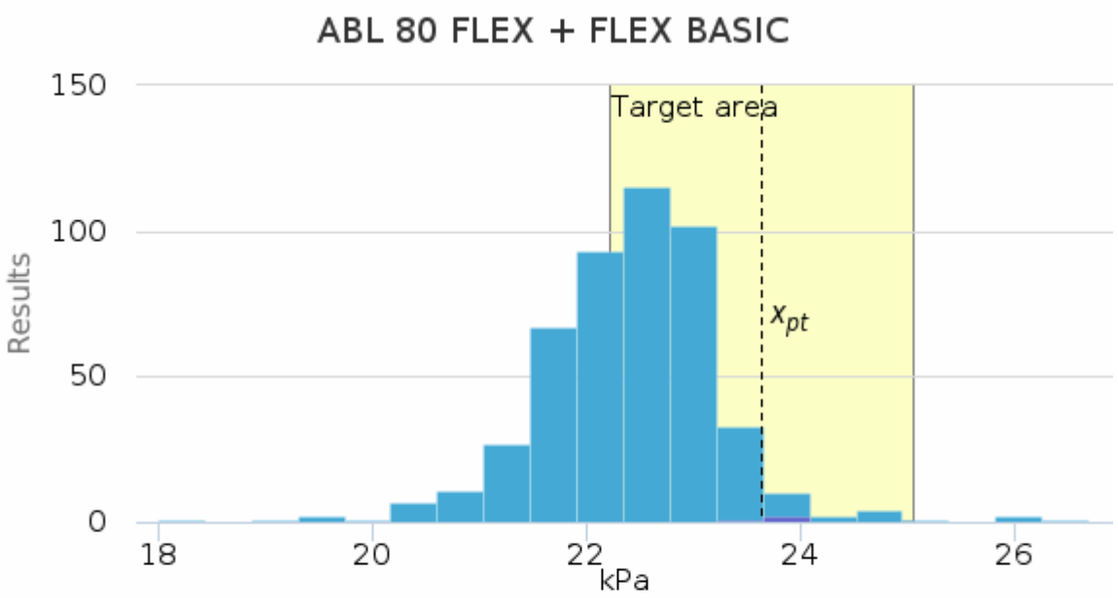


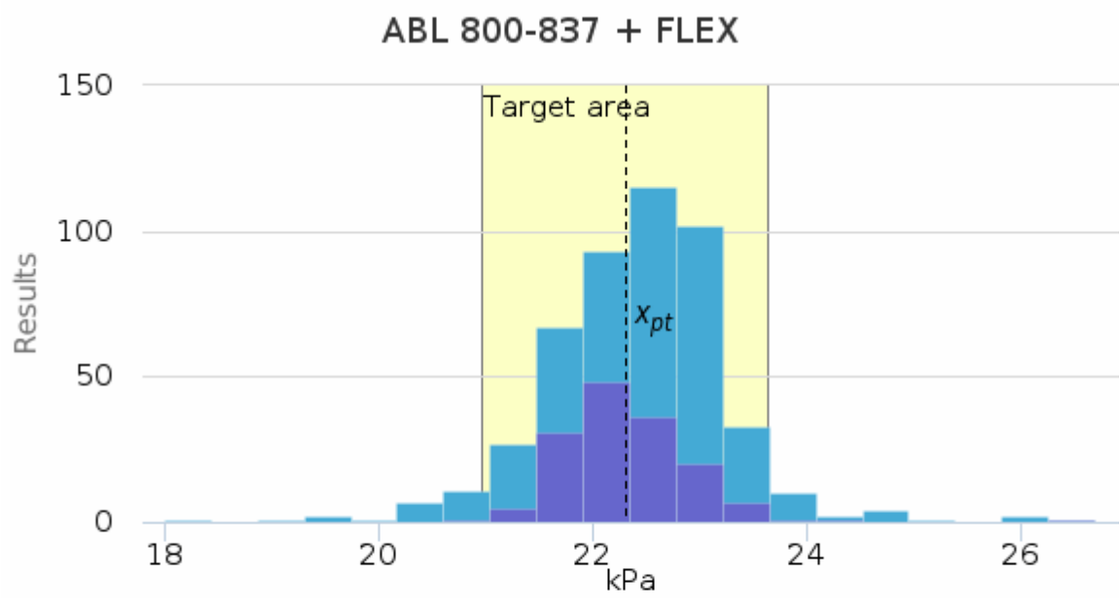


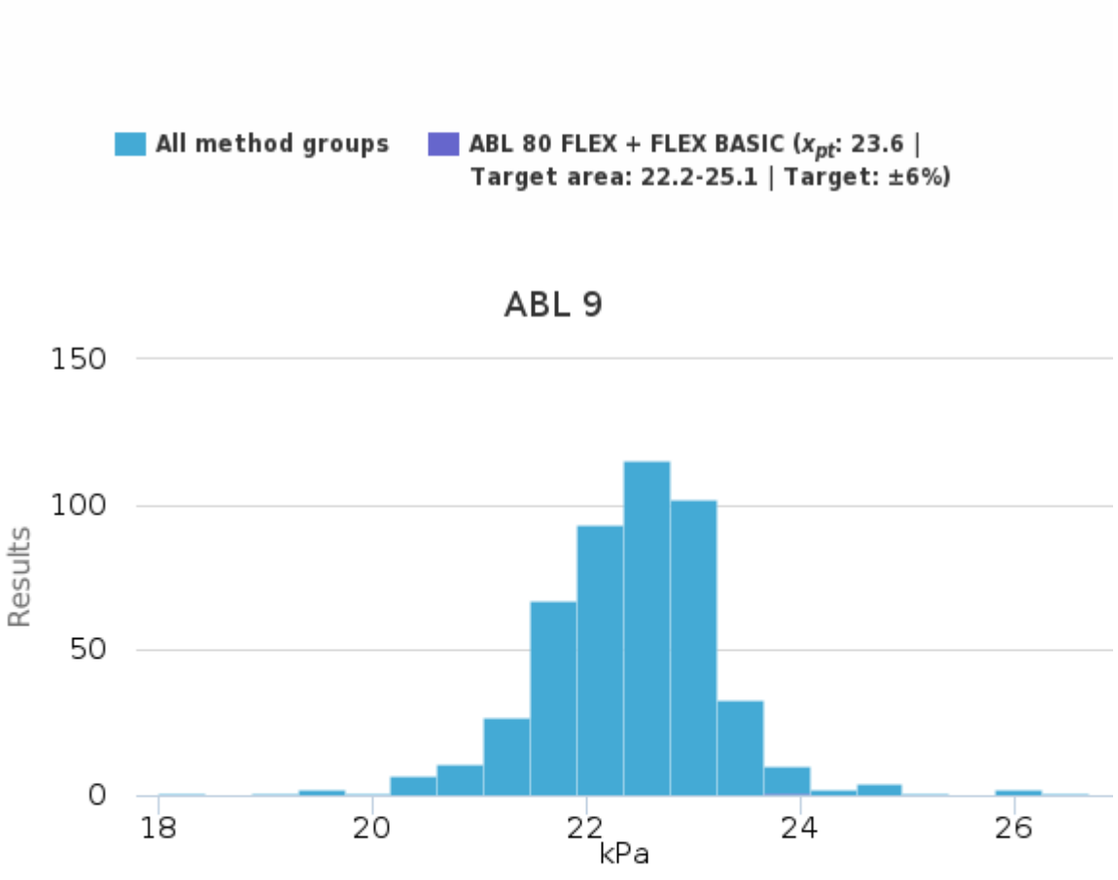
Sample S003 | O2, kPa

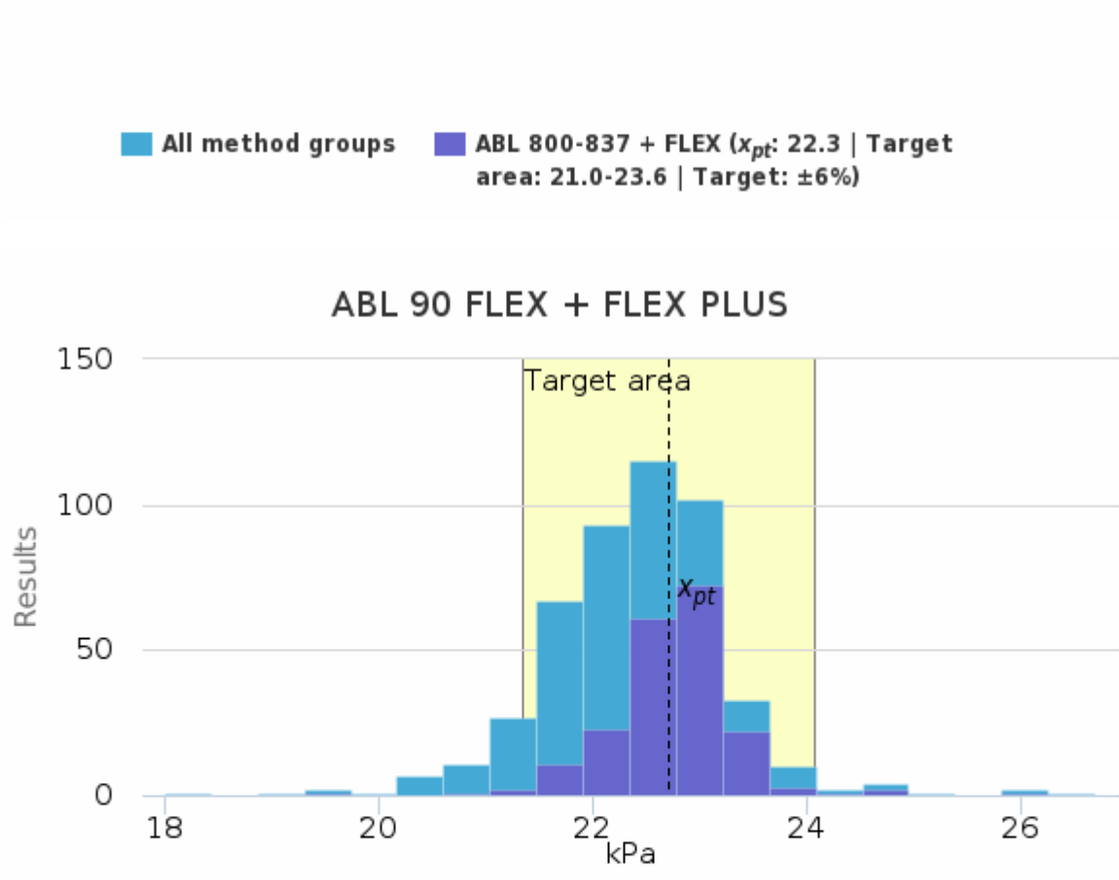
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	23.6	23.7	0.2	0.9	0.1	23.4	23.8	-	3
ABL 800-837 + FLEX	22.3	22.3	0.5	2.4	<0.1	21.0	24.2	1	151
ABL 9	-	-	-	-	-	23.8	23.8	-	1
ABL 90 FLEX + FLEX PLUS	22.7	22.8	0.5	2.2	<0.1	21.0	24.2	4	200
Cobas b 221 / AVL 9180	22.4	22.6	0.8	3.4	0.3	21.1	23.3	-	6
epoc Blood Analysis System	21.7	21.7	0.7	3.2	0.2	20.6	22.8	-	8
Gem Premier 3000-3500	22.7	22.5	0.6	2.5	0.2	22.1	23.8	-	10
Gem Premier 4000	22.2	22.1	1.4	6.4	0.7	20.5	23.9	-	4
Gem Premier 5000	21.4	21.4	0.7	3.1	0.2	20.6	22.7	-	10
i-STAT	22.1	22.4	0.9	4.2	0.2	19.0	23.0	1	19
i-STAT Alinity	22.6	22.9	0.9	4.2	0.3	20.6	23.5	-	8
RAPIDLab 1200 series (RL1240-RL1265)	22.0	21.7	1.0	4.4	0.6	21.2	23.1	-	3
RAPIDLab 348/348EX	-	-	-	-	-	23.9	23.9	-	1
RAPIDPoint 400/500 series	21.6	21.6	0.9	4.1	0.1	19.7	24.9	2	56
All	**22.4**	**22.5**	**0.7**	**3.3**	**<0.1**	**20.0**	**24.9**	**8**	**480**

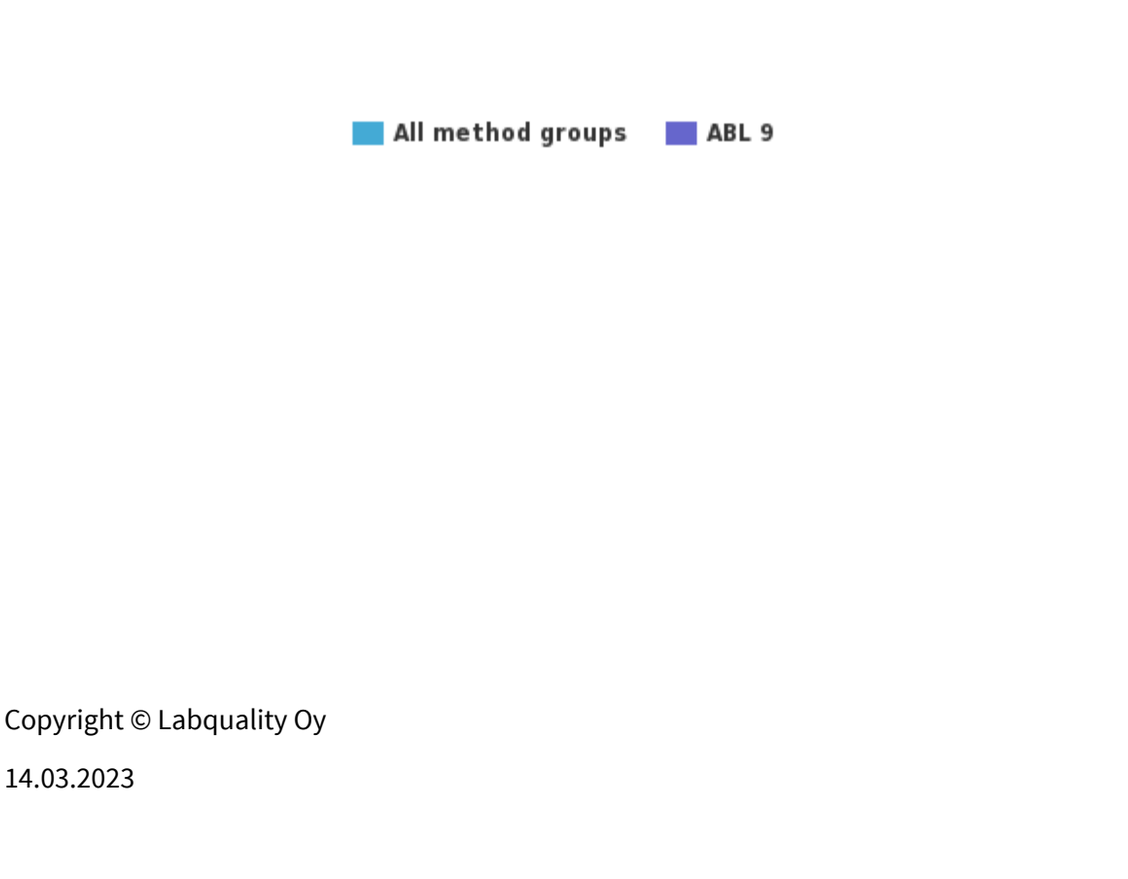
Sample S003 | O2, kPa| histogram summaries in LabScala



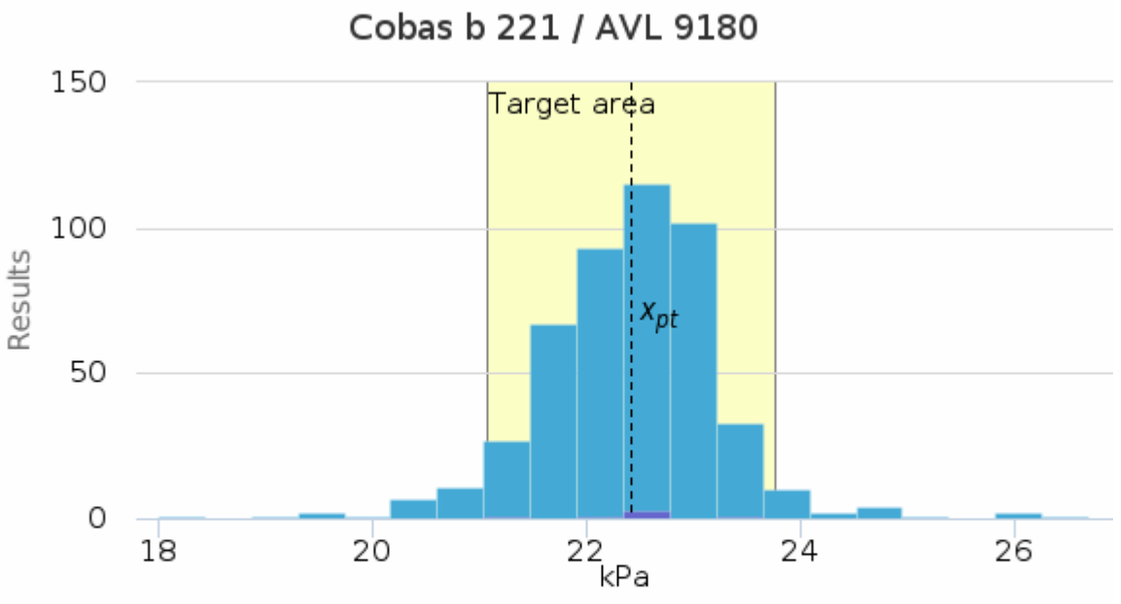


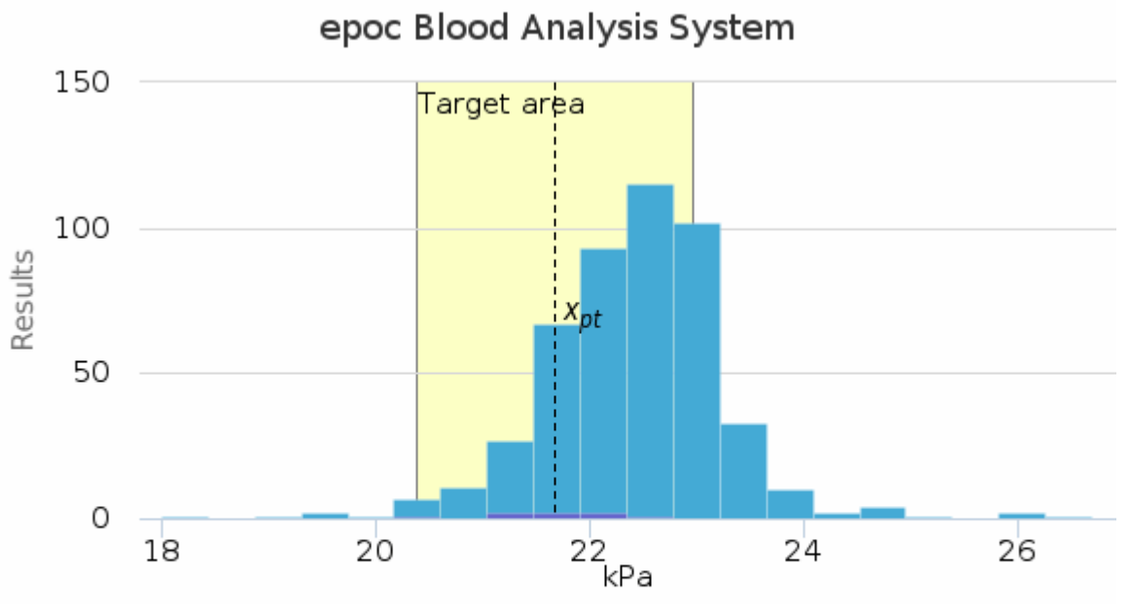


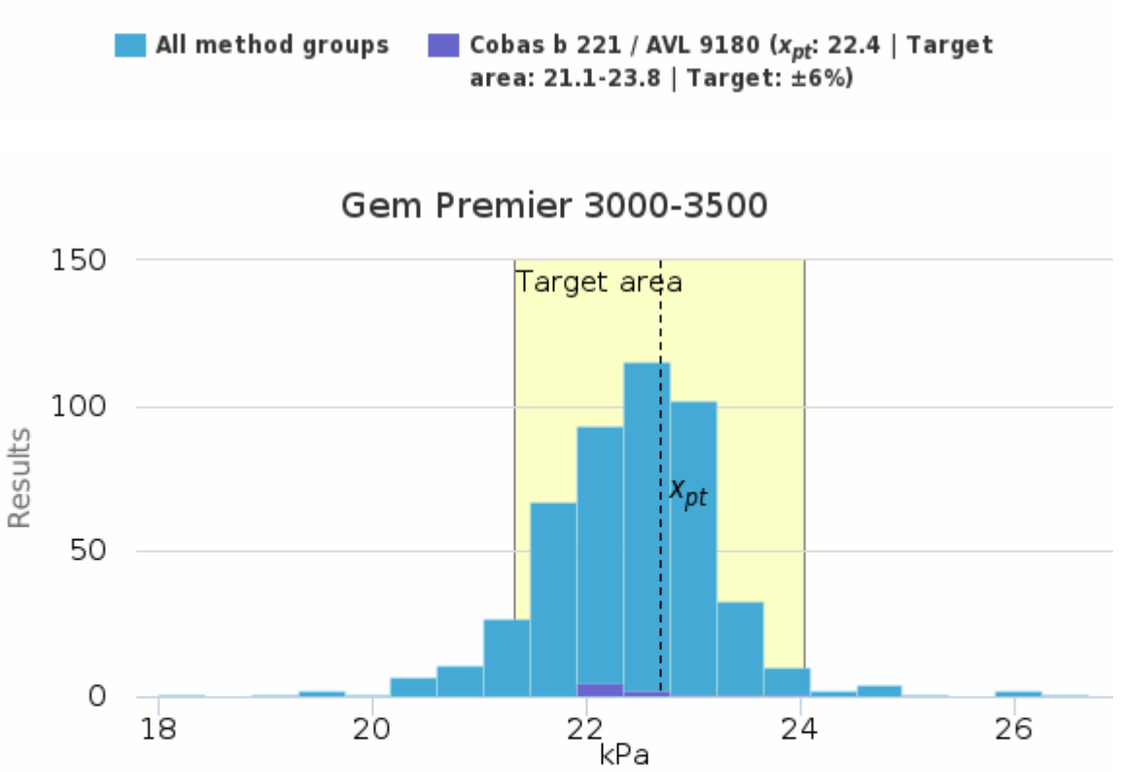


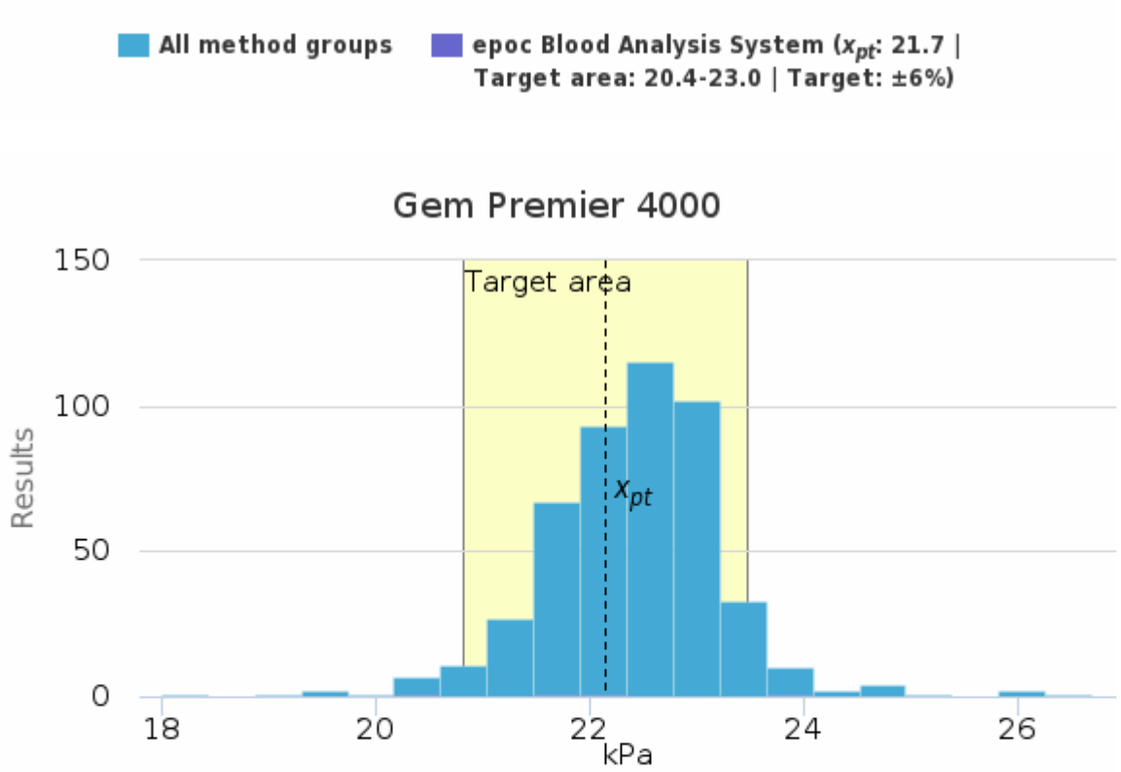


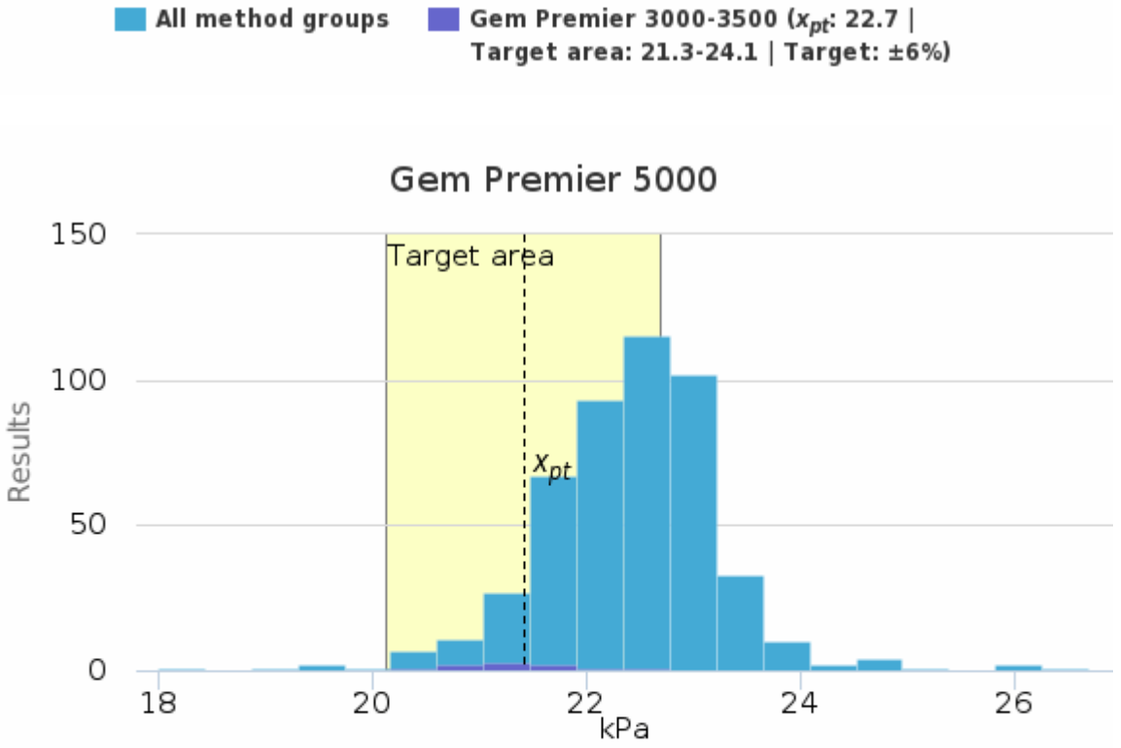
Acid-base status and electrolytes, February, 1-2023

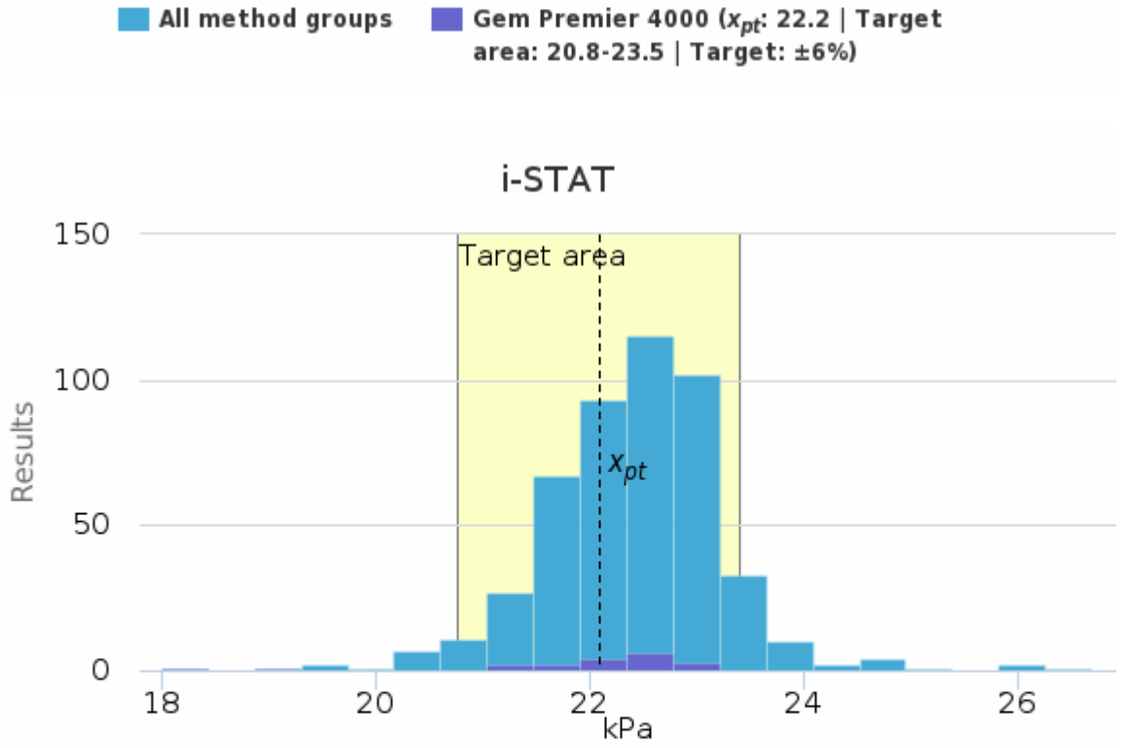




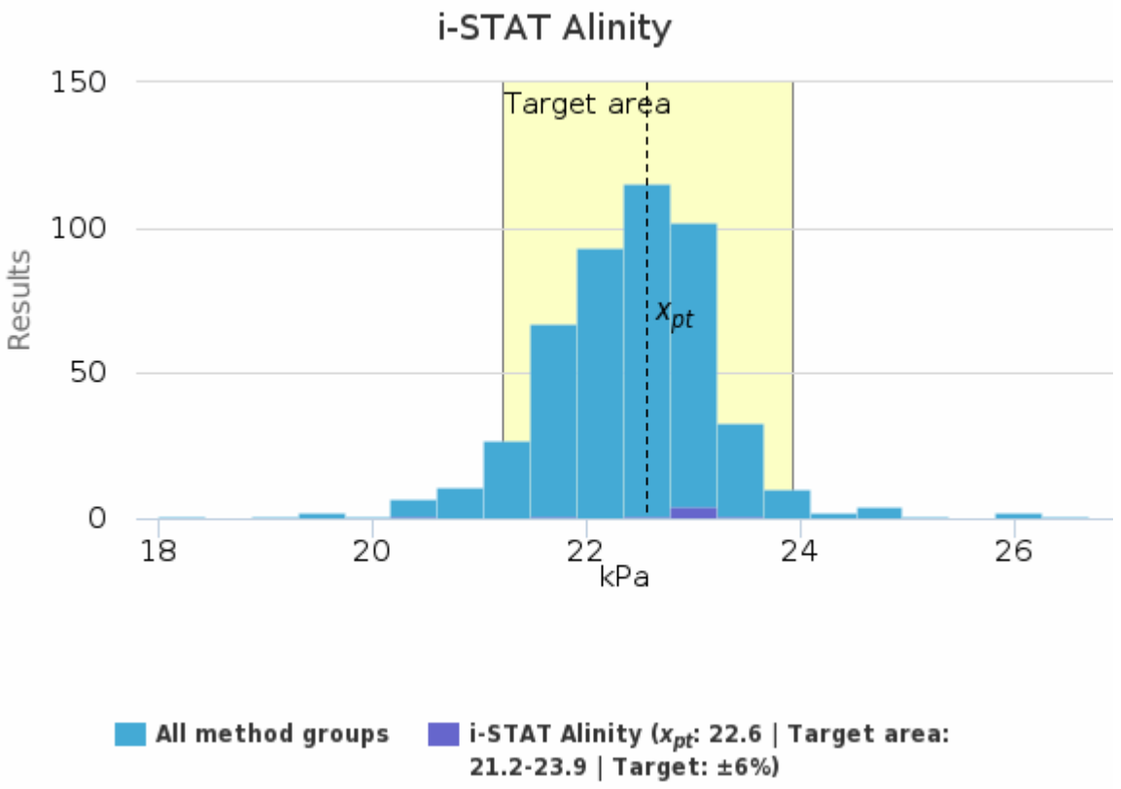


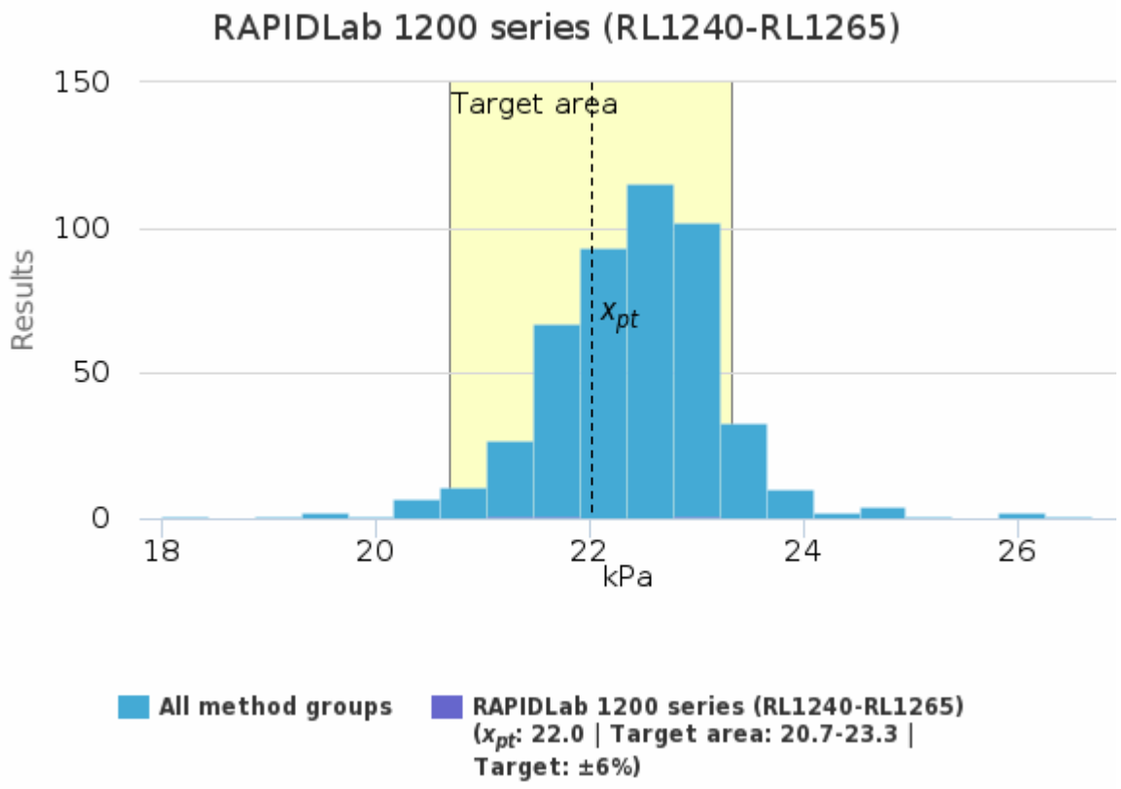


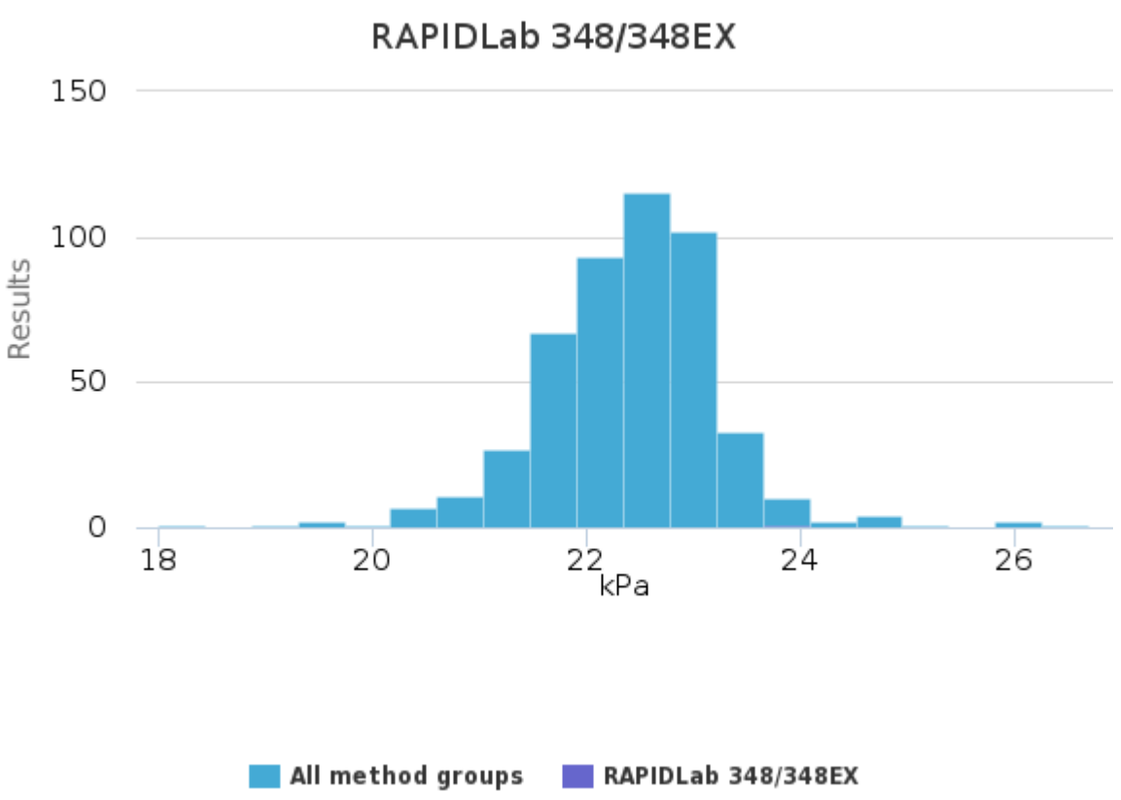


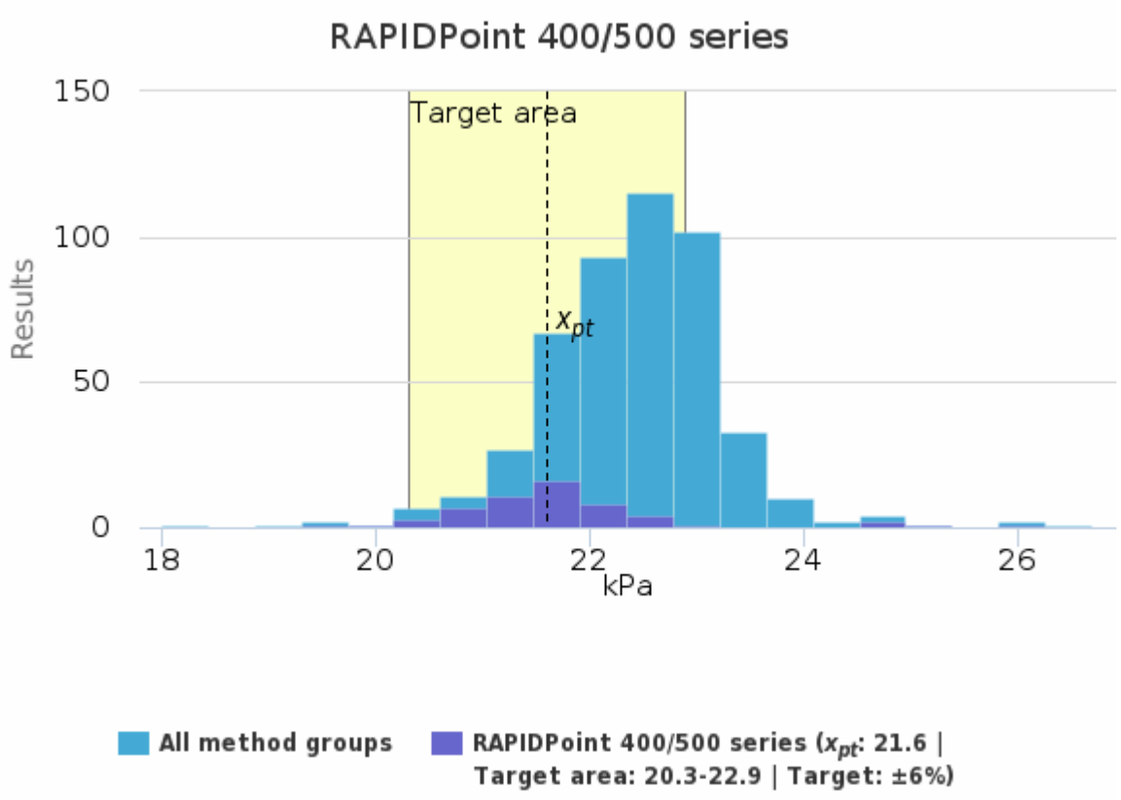


Acid-base status and electrolytes, February, 1-2023





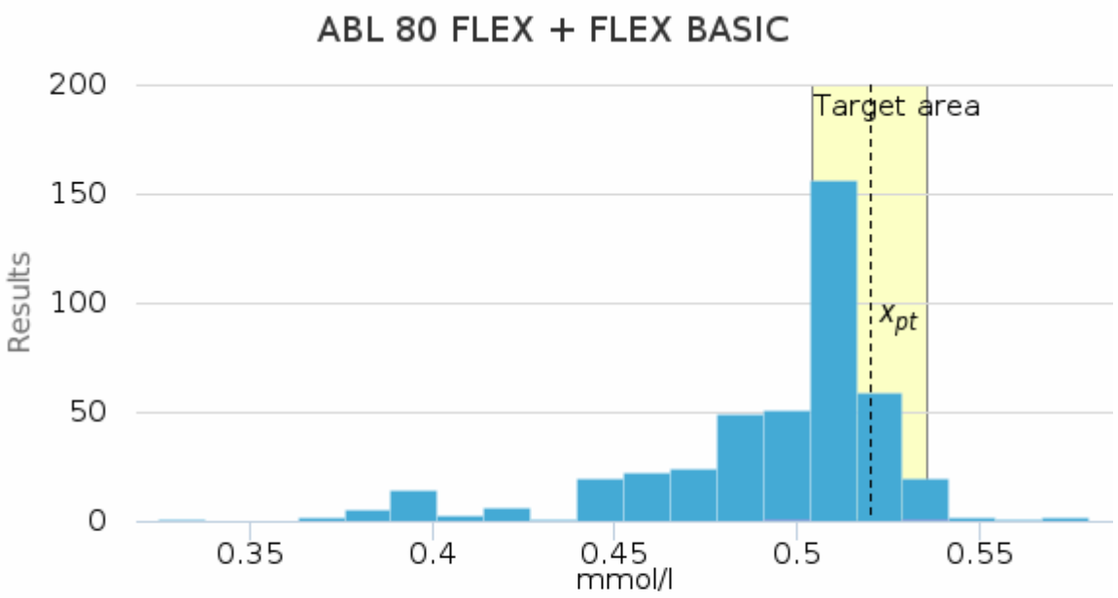


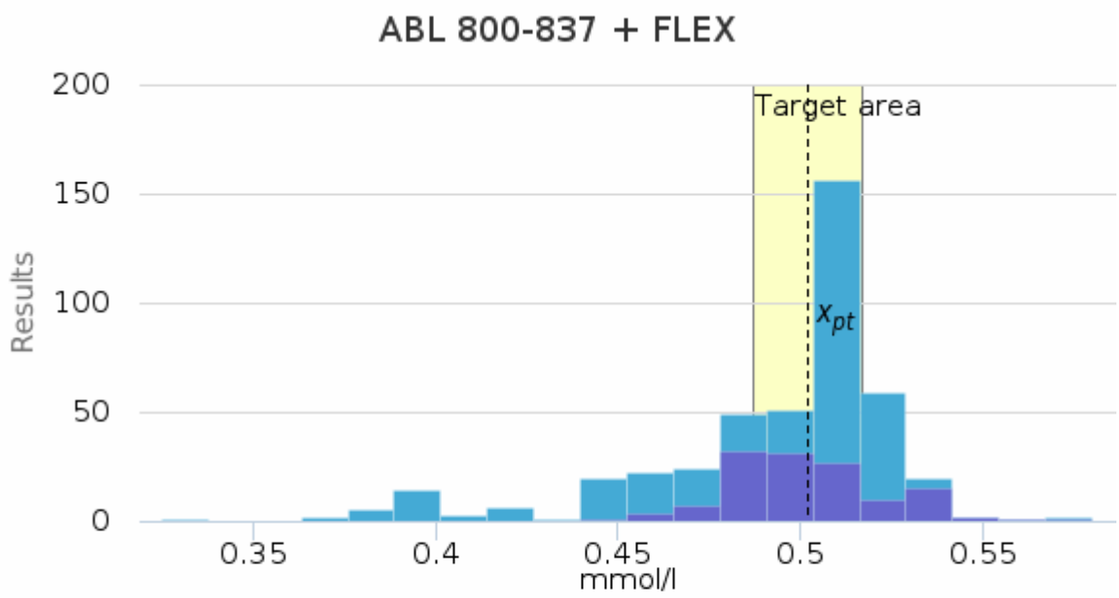


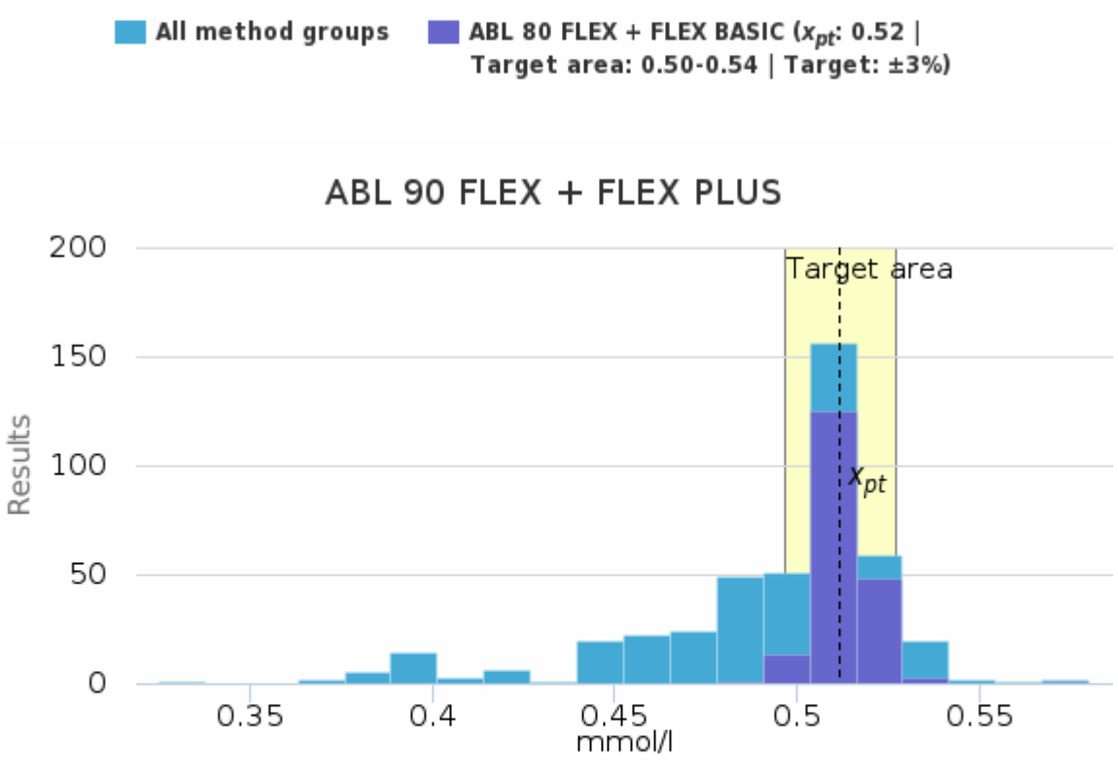
Sample S003 | Ca-ion actual, mmol/l

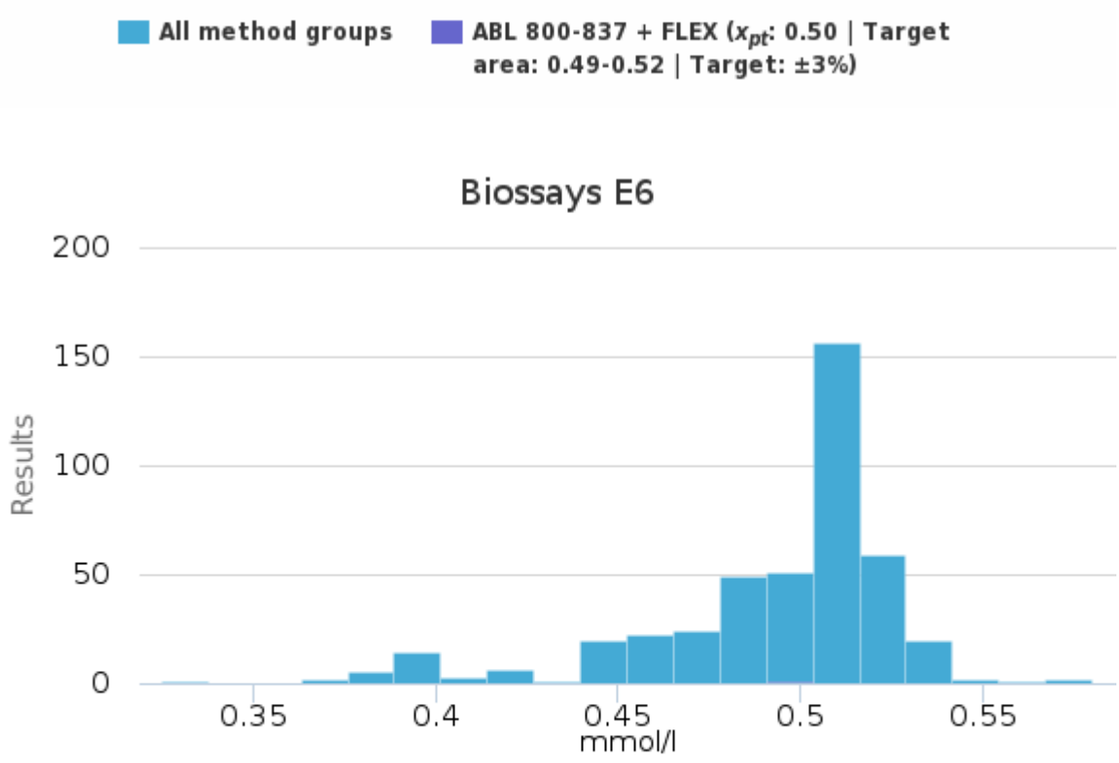
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	0.52	0.52	0.03	5.4	0.02	0.50	0.54	-	2
ABL 800-837 + FLEX	0.50	0.50	0.02	4.0	<0.01	0.45	0.56	1	131
ABL 90 FLEX + FLEX PLUS	0.51	0.51	<0.01	1.1	<0.01	0.49	0.53	3	191
Biossays E6	-	-	-	-	-	0.50	0.50	-	1
Cobas b 221 / AVL 9180	0.42	0.42	0.02	4.0	<0.01	0.39	0.45	-	8
epoc Blood Analysis System	0.45	0.45	<0.01	1.9	<0.01	0.44	0.46	-	8
Gem Premier 3000-3500	0.40	0.40	<0.01	2.1	<0.01	0.39	0.41	-	10
Gem Premier 4000	0.41	0.40	0.01	2.5	<0.01	0.40	0.42	-	4
Gem Premier 5000	0.38	0.38	0.01	3.7	<0.01	0.37	0.42	-	10
i-STAT	0.46	0.46	<0.01	1.1	<0.01	0.45	0.46	1	12
i-STAT Alinity	0.46	0.46	<0.01	<0.1	<0.01	0.46	0.46	-	6
Nova 8	-	-	-	-	-	0.49	0.49	-	1
RAPIDLab 1200 series (RL1240-RL1265)	0.45	0.45	<0.01	<0.1	<0.01	0.45	0.45	-	2
RAPIDPoint 400/500 series	0.48	0.47	0.02	3.9	<0.01	0.44	0.53	1	52
All	**0.50**	**0.51**	**0.03**	**5.2**	**<0.01**	**0.41**	**0.58**	**22**	**438**

Sample S003 | Ca-ion actual, mmol/l| histogram summaries in LabScala

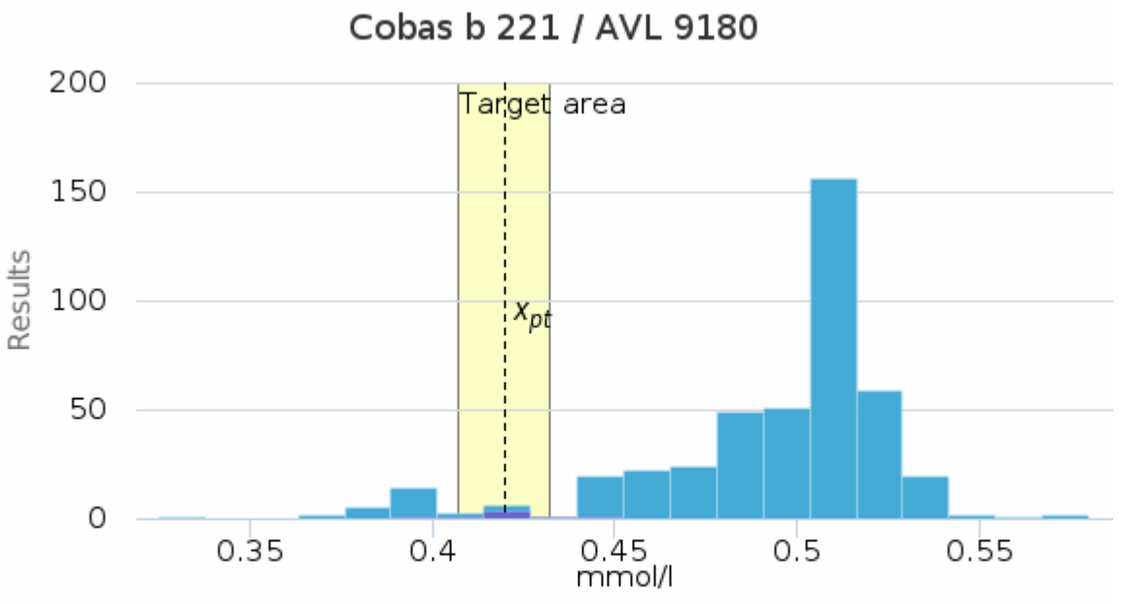


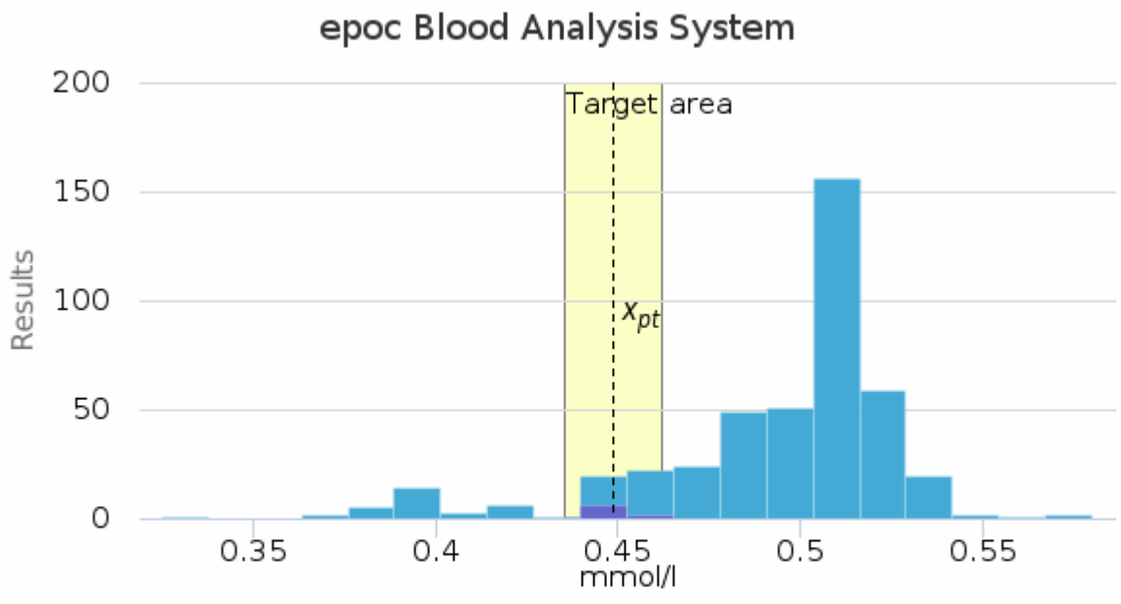






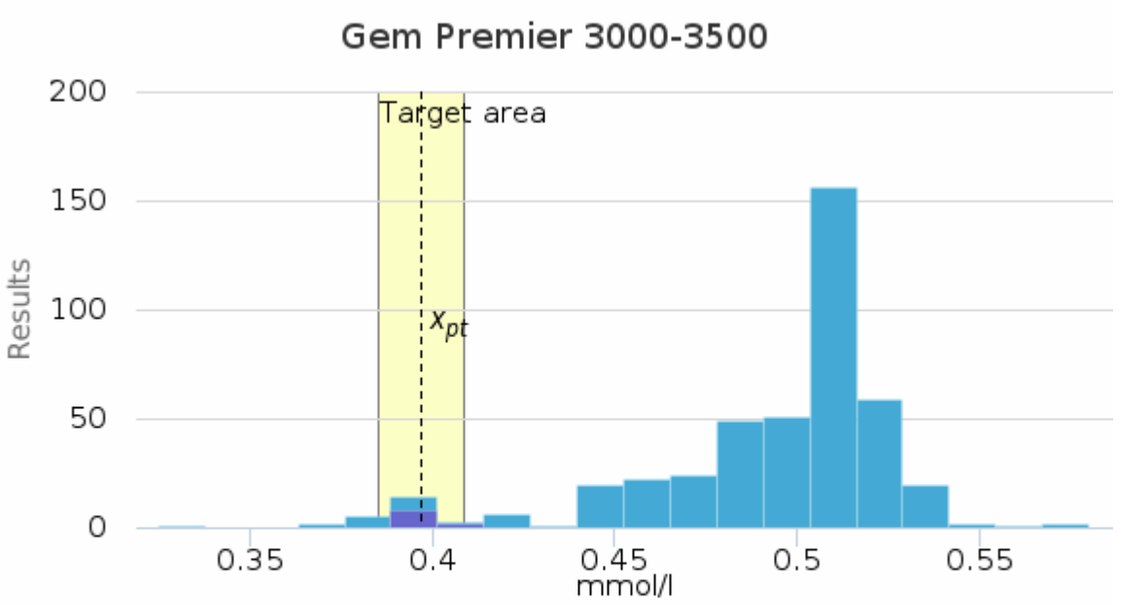
Acid-base status and electrolytes, February, 1-2023

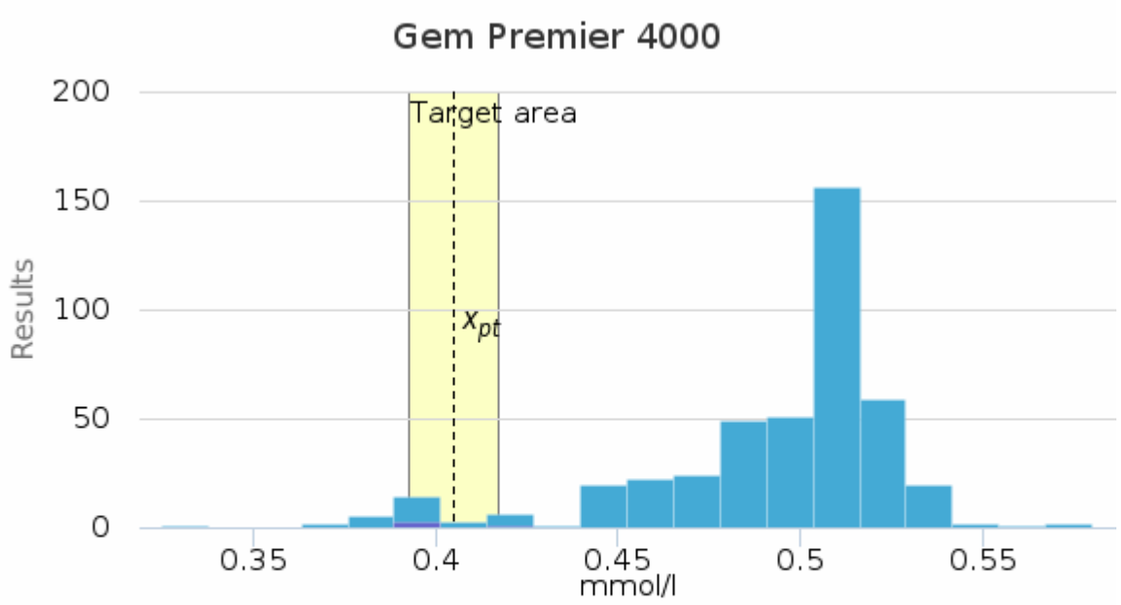




All method groups — Cobas b 221 / AVL 9180 (x_{pt}: 0.42 | Target area: 0.41-0.43 | Target: ±3%)

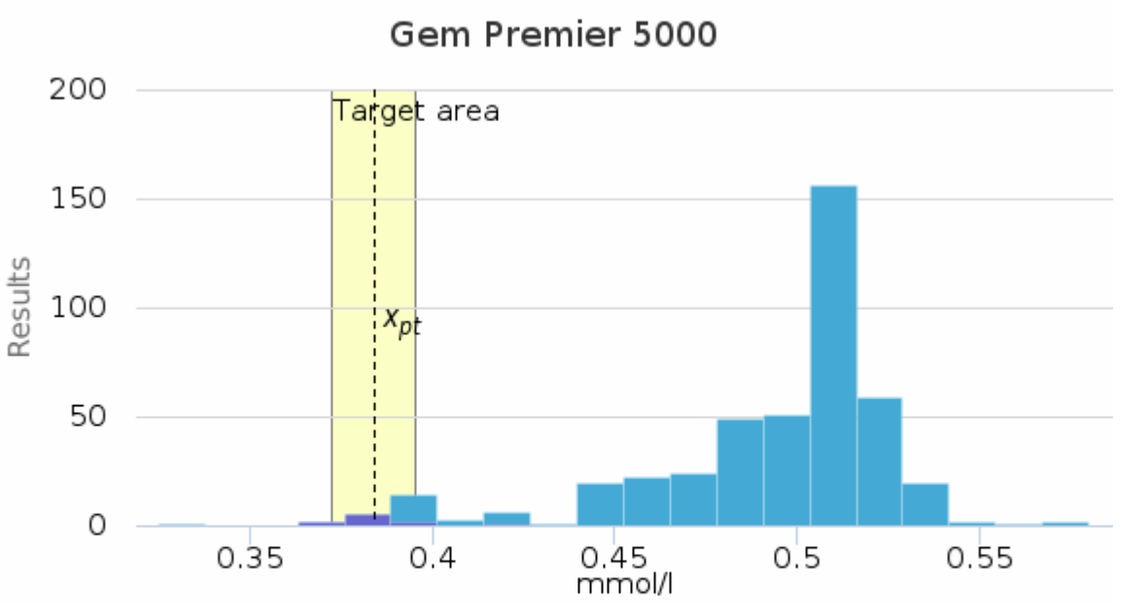
All method groups — epoc Blood Analysis System (x_{pt}: 0.45 | Target area: 0.44-0.46 | Target: ±3%)

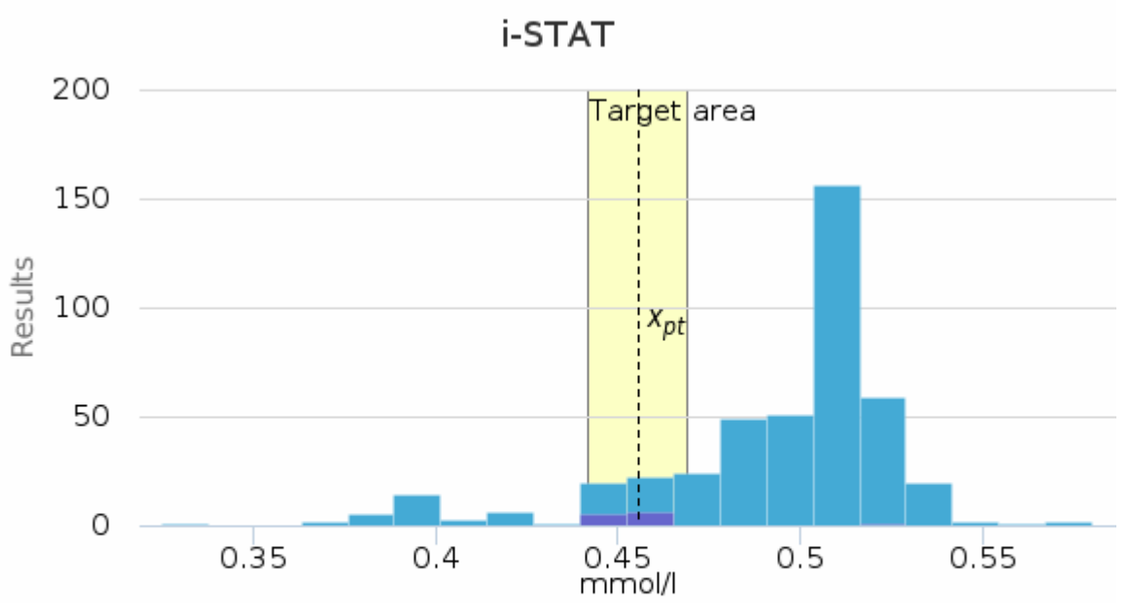




All method groups — Gem Premier 3000-3500 (x_{pt}: 0.40 | Target area: 0.39-0.41 | Target: ±3%)

All method groups — Gem Premier 4000 (x_{pt}: 0.41 | Target area: 0.39-0.42 | Target: ±3%)

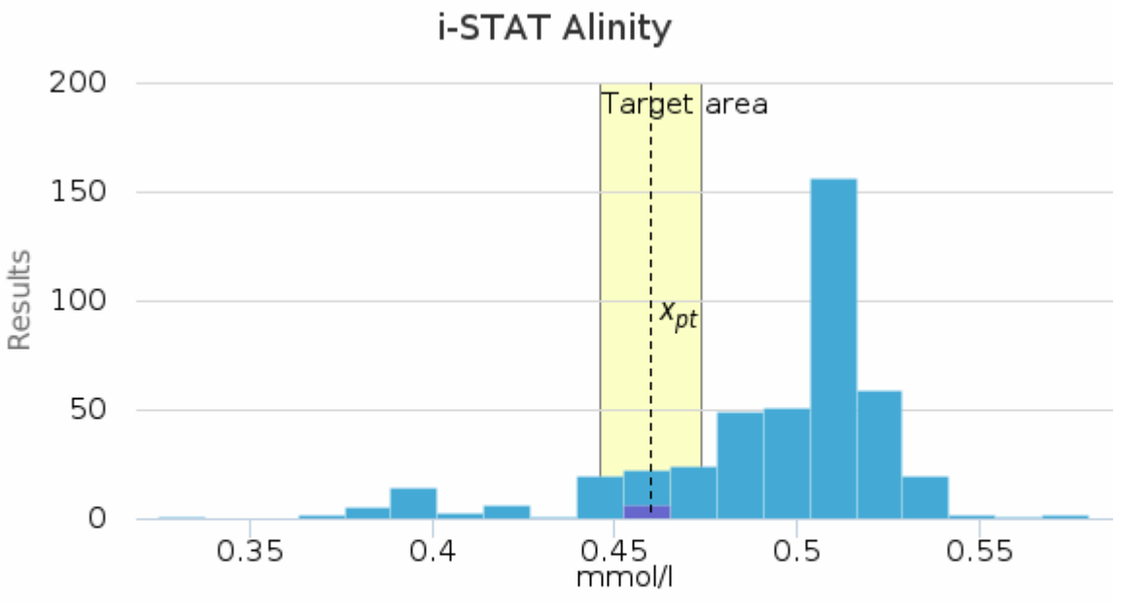


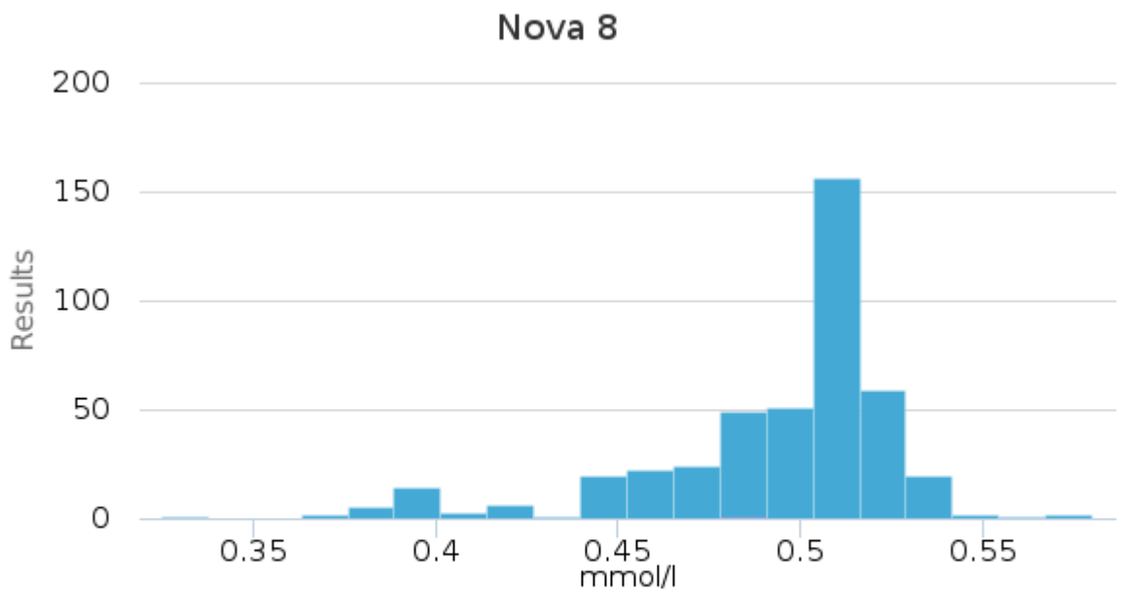


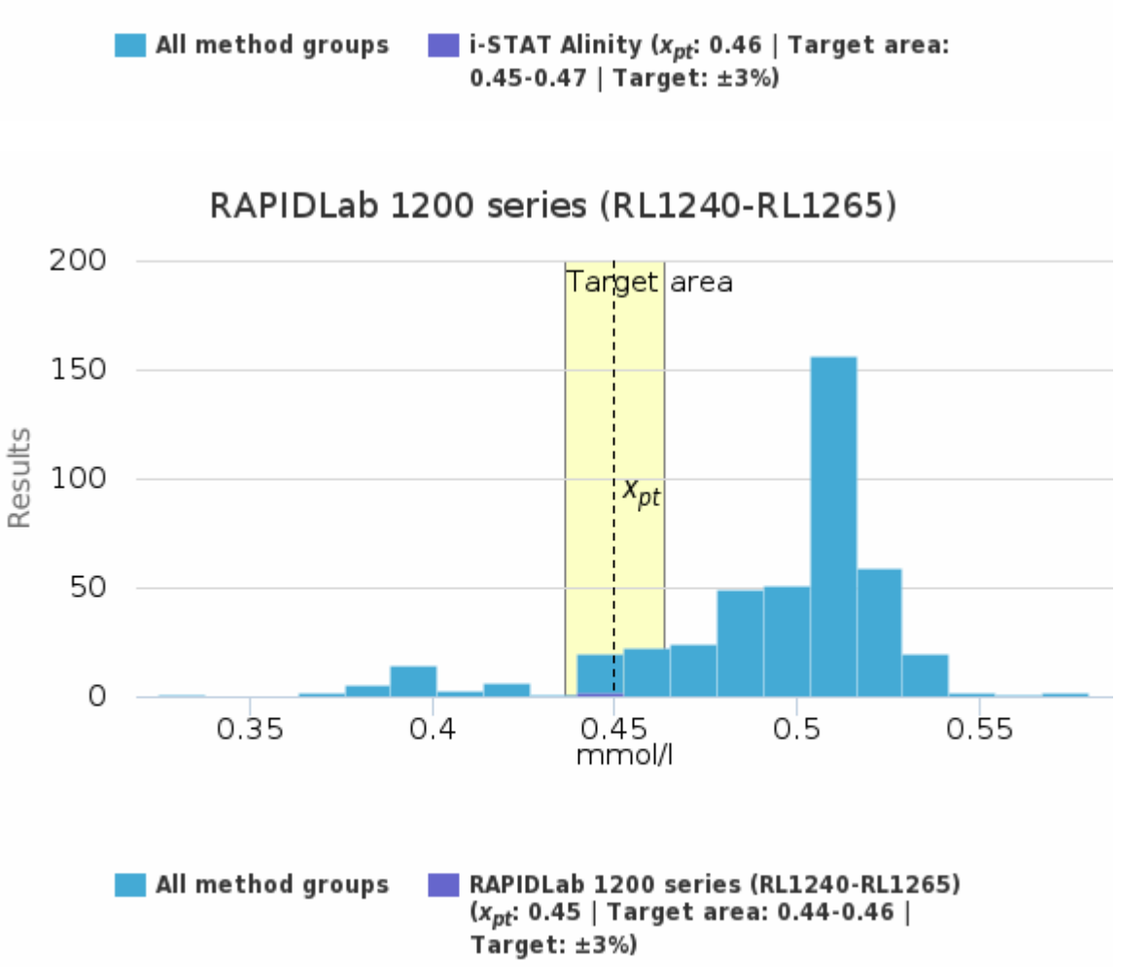
All method groups — Gem Premier 5000 (x_{pt}: 0.38 | Target area: 0.37-0.40 | Target: ±3%)

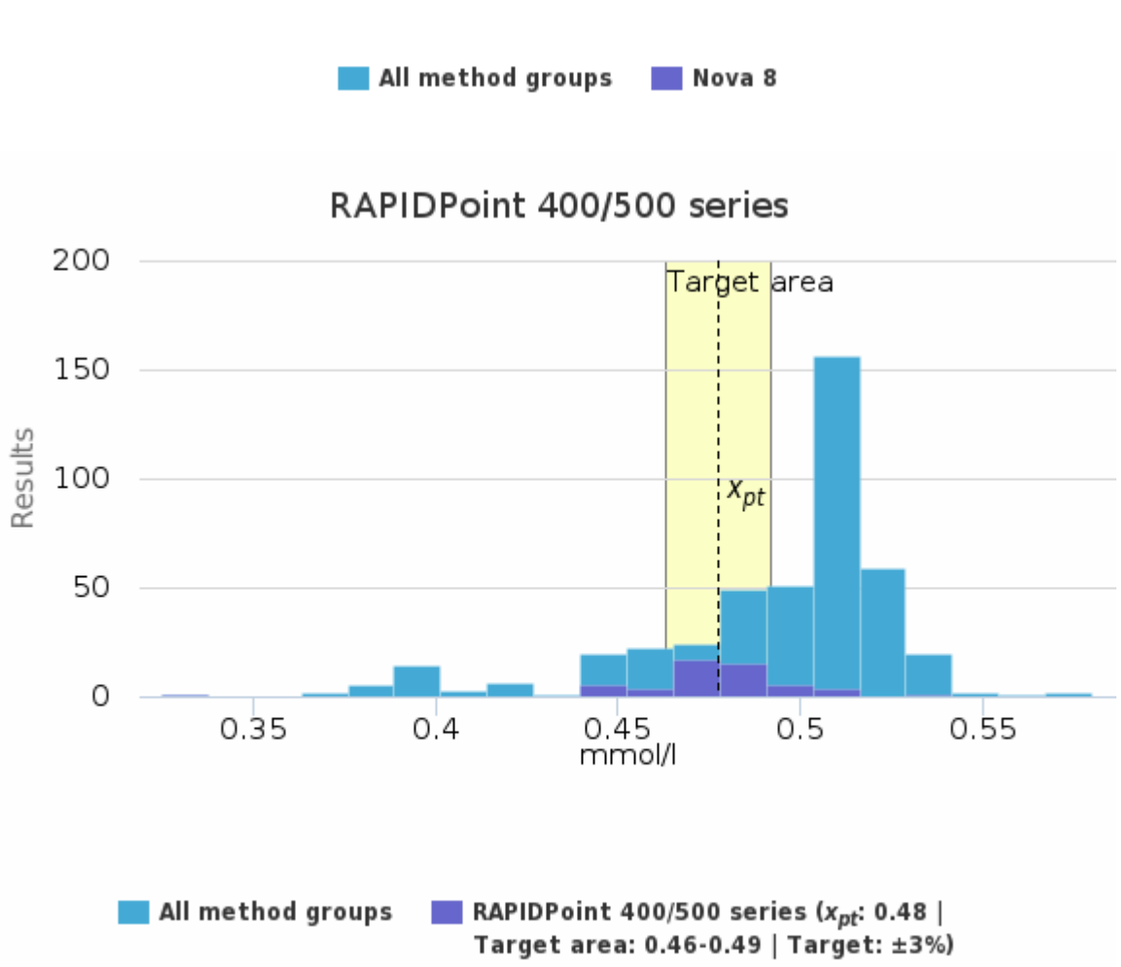
All method groups — i-STAT (x_{pt}: 0.46 | Target area: 0.44-0.47 | Target: ±3%)

Acid-base status and electrolytes, February, 1-2023





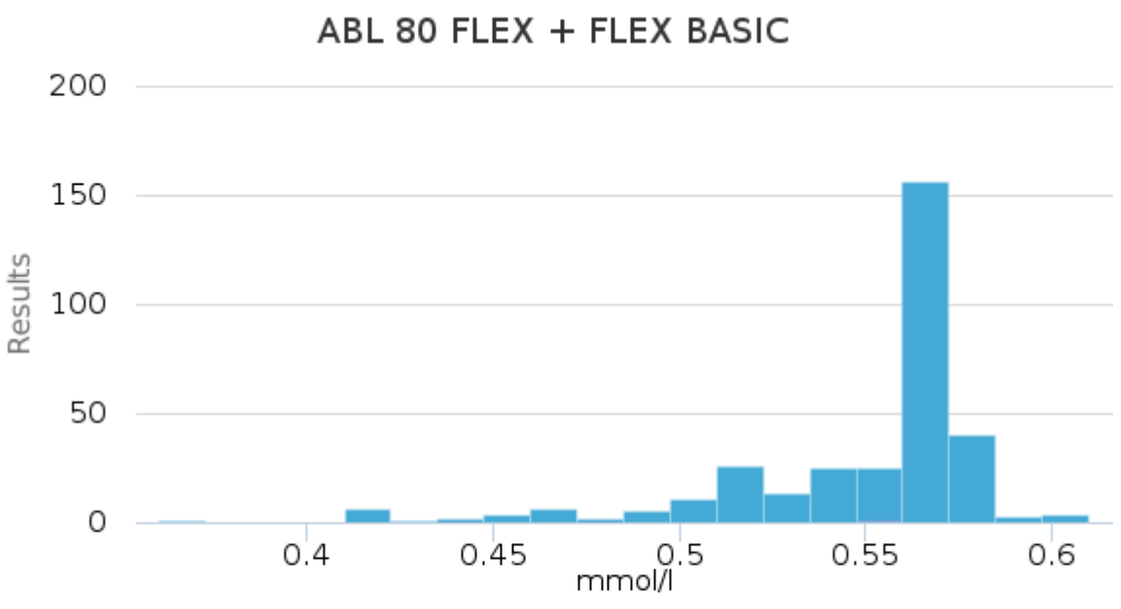


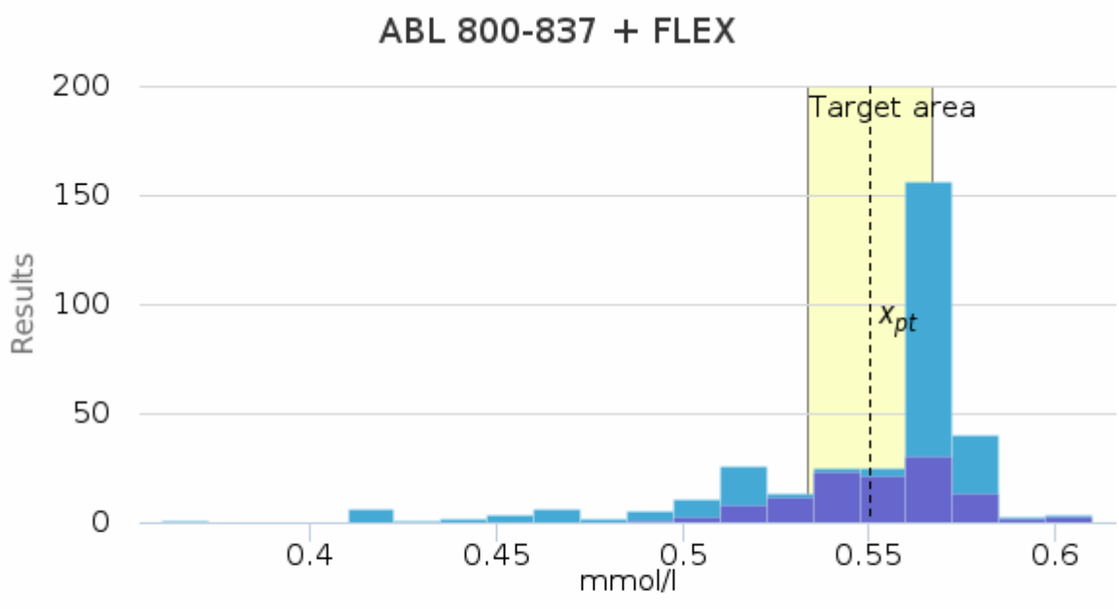


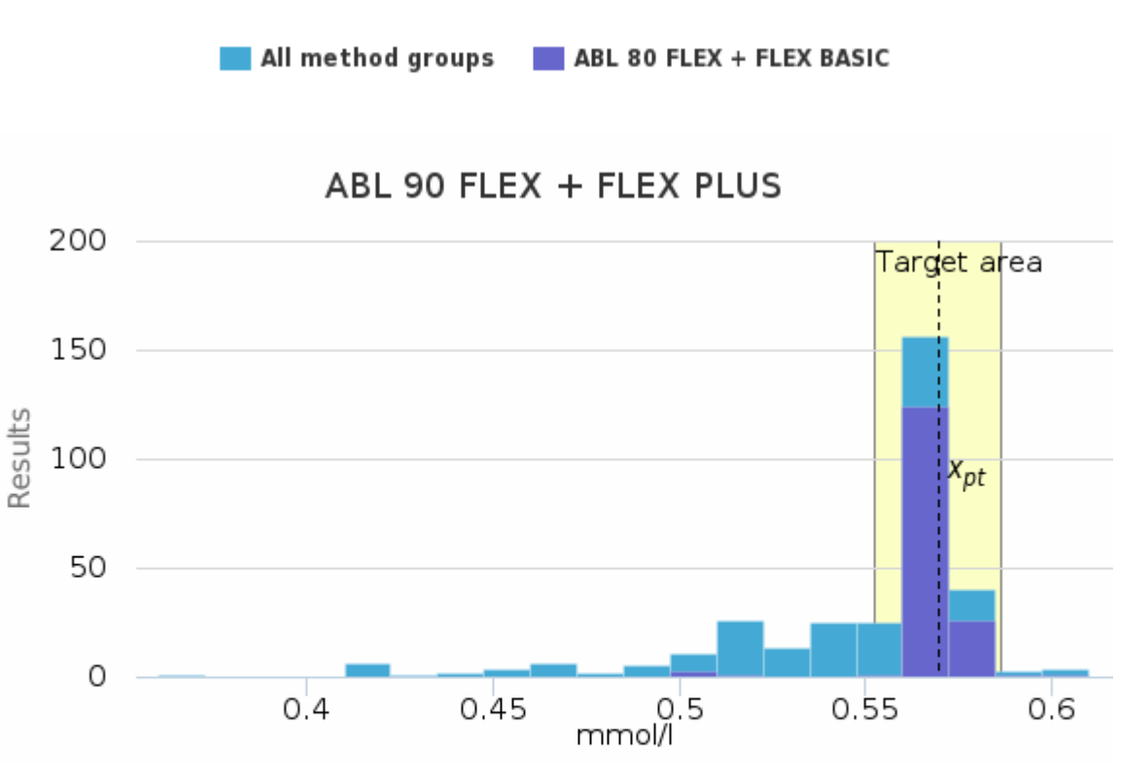
Sample S003 | Ca-ion adjusted, mmol/l

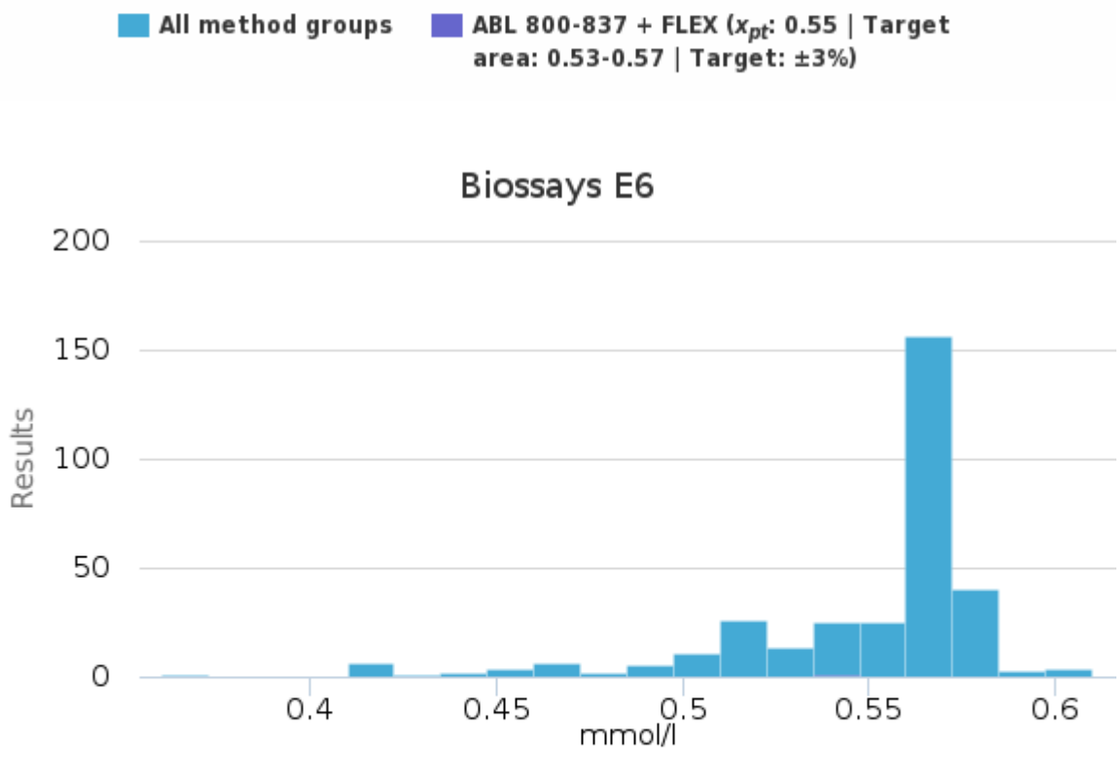
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	-	-	-	-	-	0.55	0.55	-	1
ABL 800-837 + FLEX	0.55	0.55	0.02	4.0	<0.01	0.49	0.61	-	116
ABL 90 FLEX + FLEX PLUS	0.57	0.57	<0.01	1.2	<0.01	0.55	0.59	5	157
Biossays E6	-	-	-	-	-	0.54	0.54	-	1
Cobas b 221 / AVL 9180	0.47	0.46	0.02	3.3	<0.01	0.45	0.49	-	5
Gem Premier 3000-3500	-	-	-	-	-	0.45	0.45	-	1
Gem Premier 4000	0.45	0.45	<0.01	1.6	<0.01	0.44	0.45	-	2
Gem Premier 5000	0.42	0.42	<0.01	2.1	<0.01	0.41	0.44	-	8
i-STAT	0.50	0.46	0.06	12.8	0.04	0.46	0.57	-	3
Konelab	-	-	-	-	-	0.50	0.50	-	1
Nova 8	-	-	-	-	-	0.55	0.55	-	1
RAPIDLab 1200 series (RL1240-RL1265)	0.49	0.49	<0.01	<0.1	<0.01	0.49	0.49	-	2
RAPIDPoint 400/500 series	0.51	0.51	0.02	4.9	<0.01	0.45	0.58	1	32
All	**0.55**	**0.56**	**0.03**	**5.3**	**<0.01**	**0.45**	**0.61**	**10**	**330**

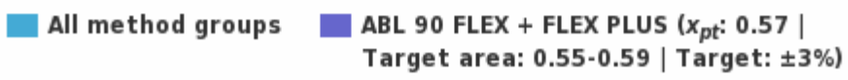
Sample S003 | Ca-ion adjusted, mmol/l| histogram summaries in LabScala



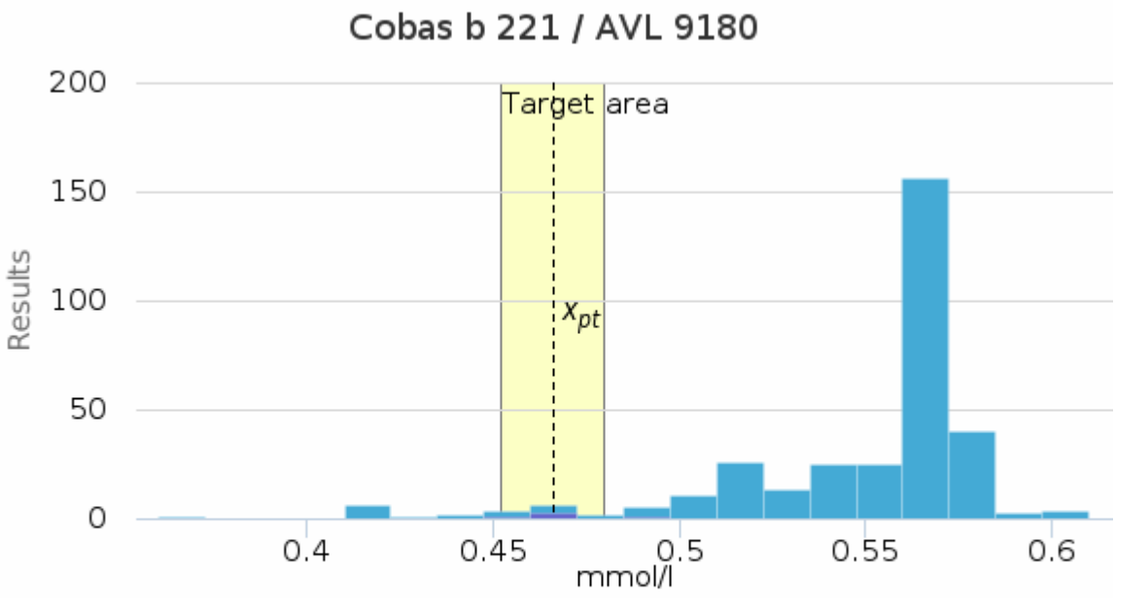


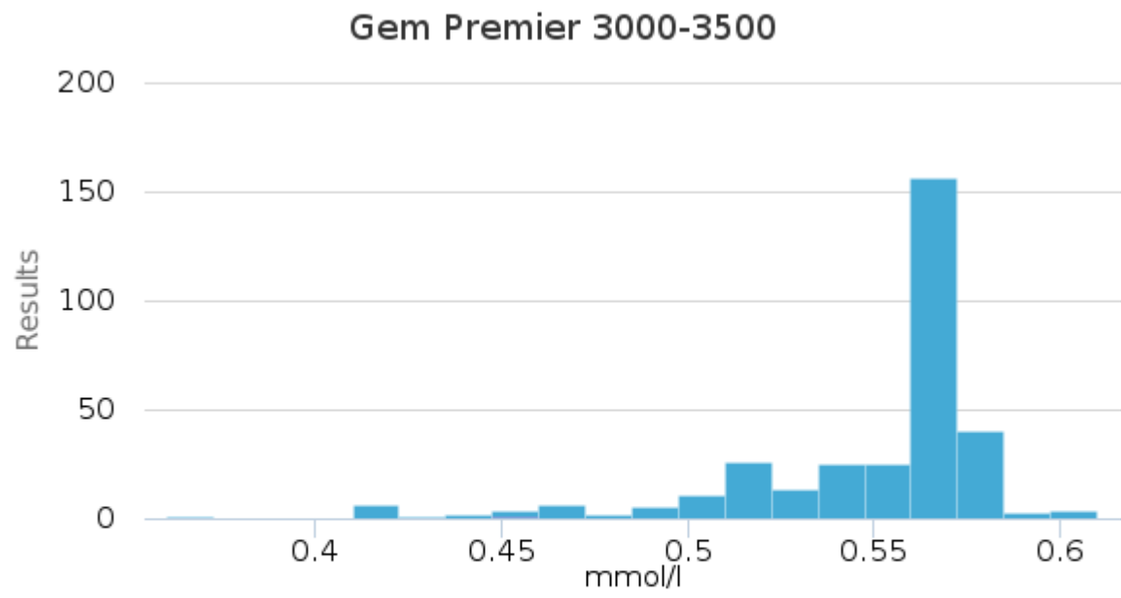


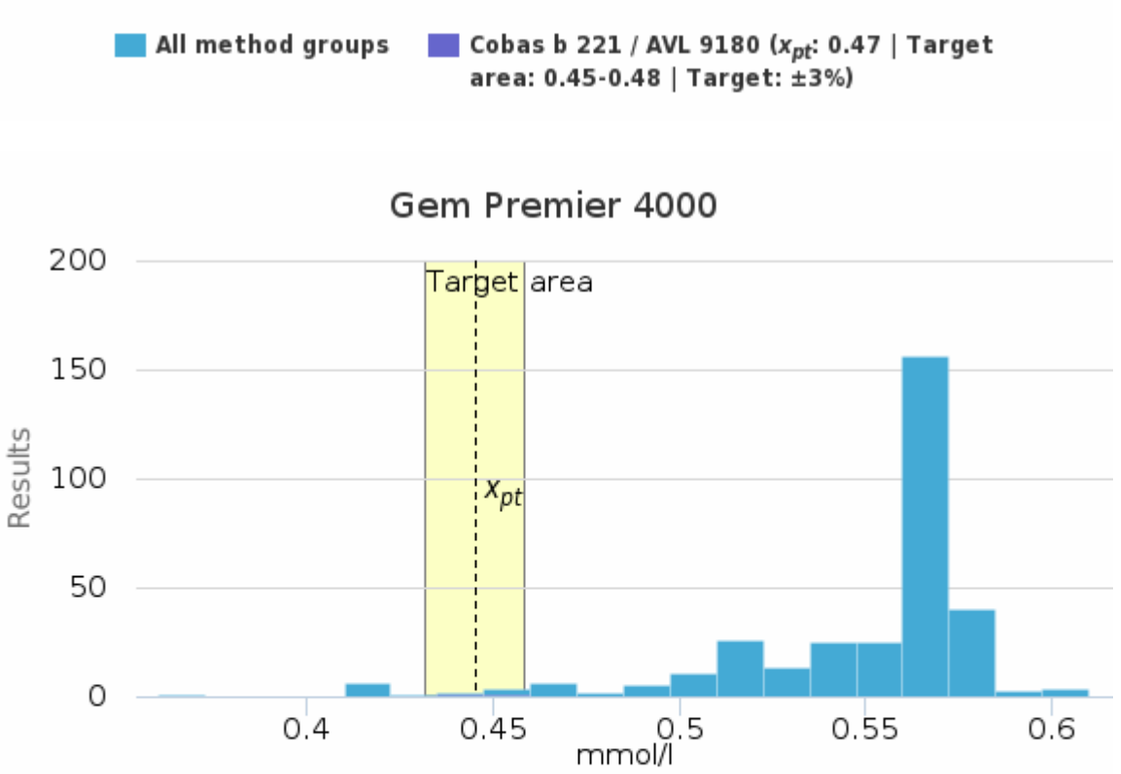


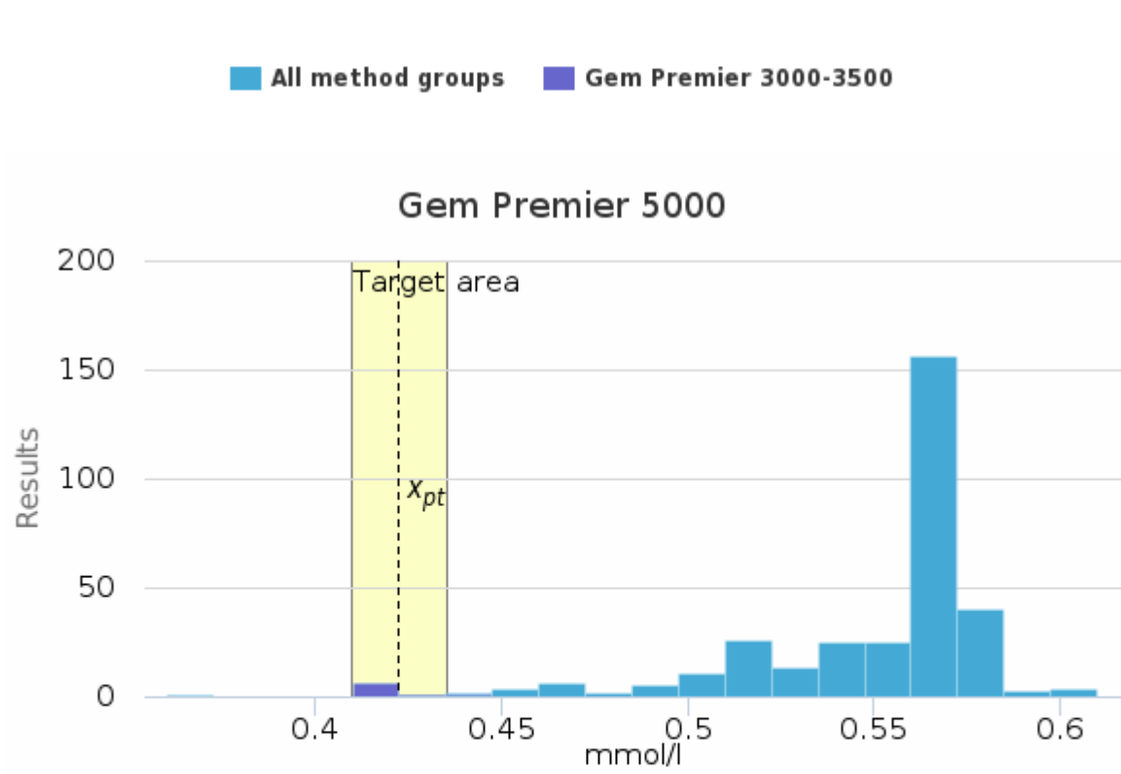


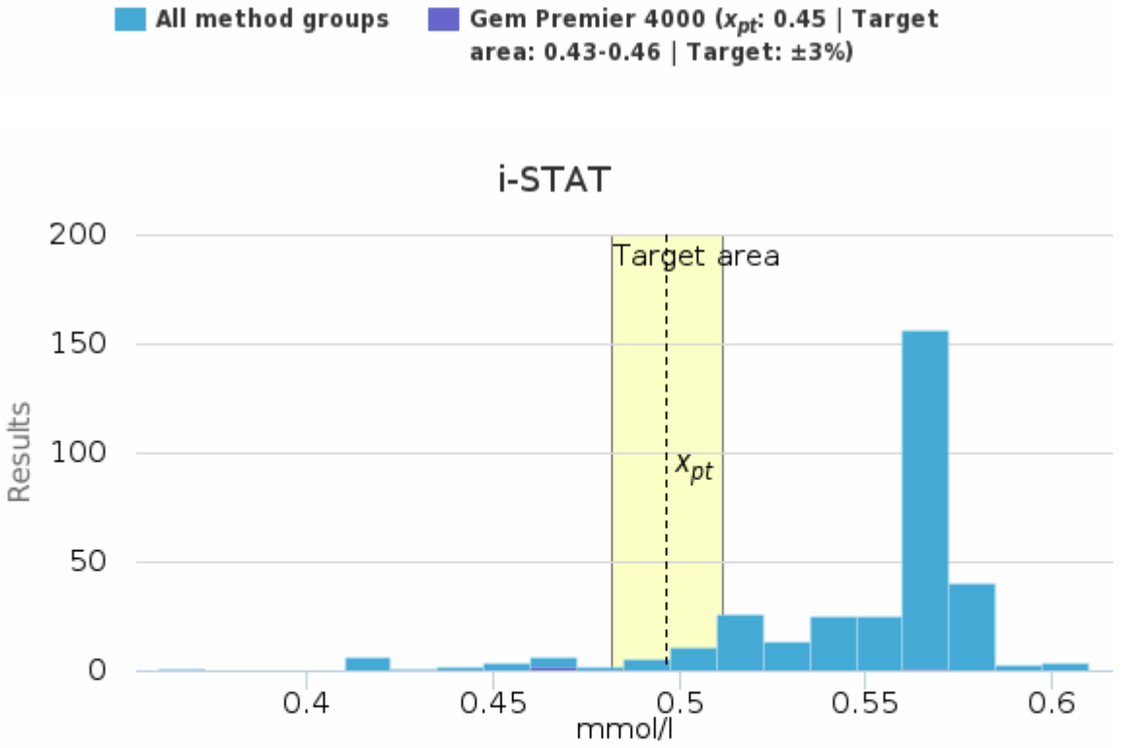
Acid-base status and electrolytes, February, 1-2023

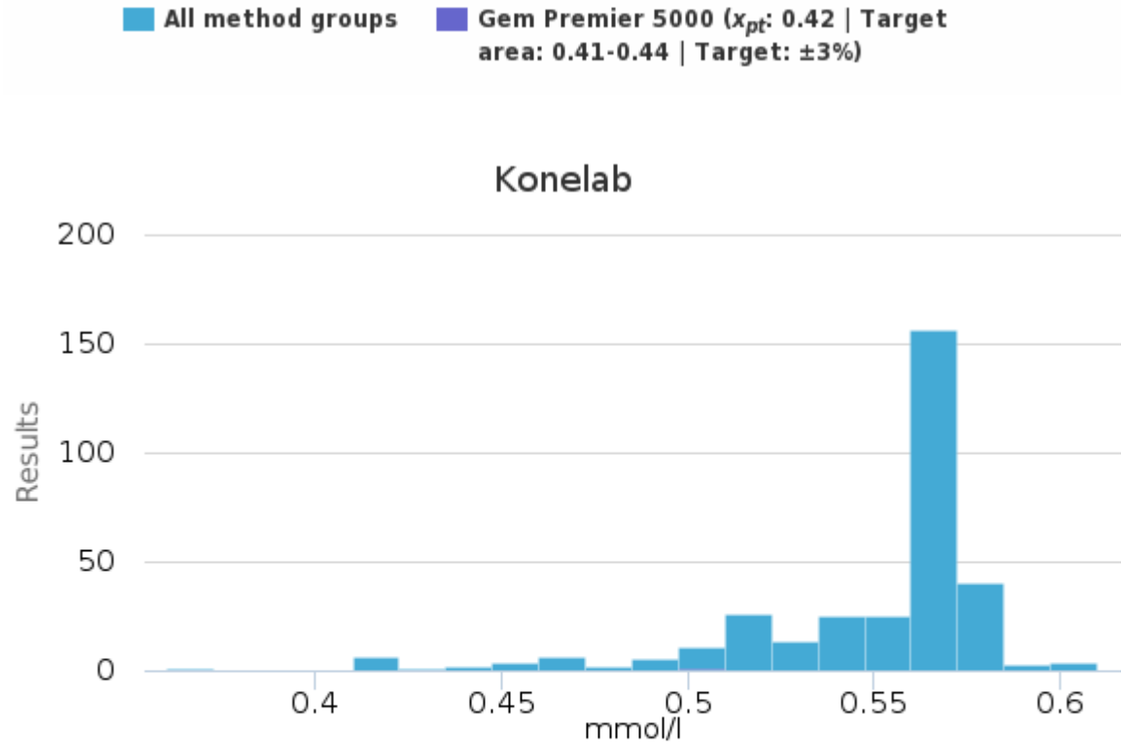




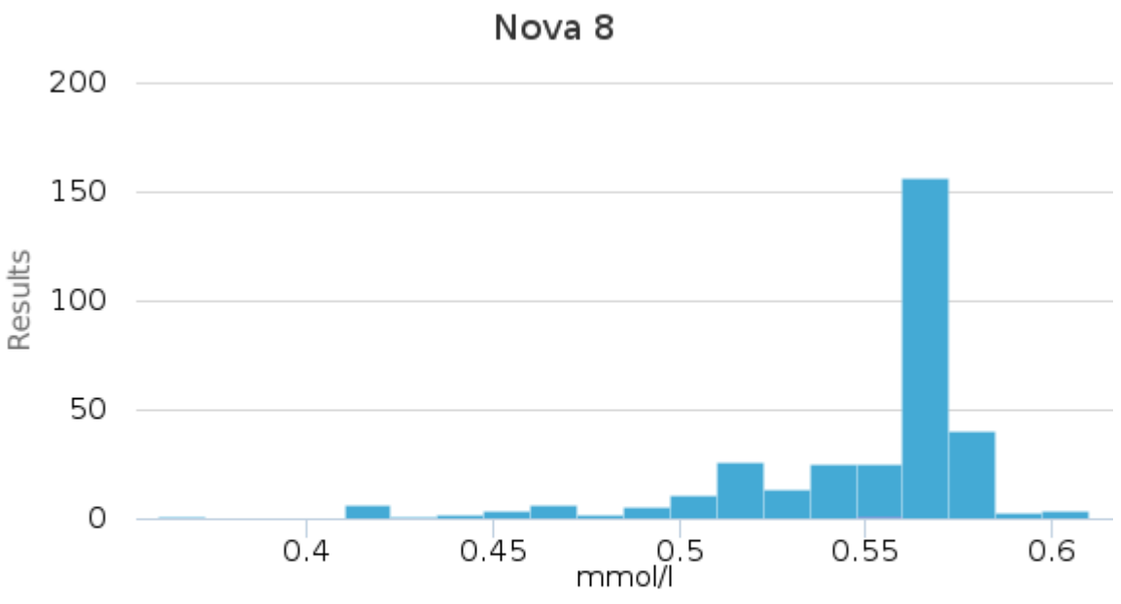


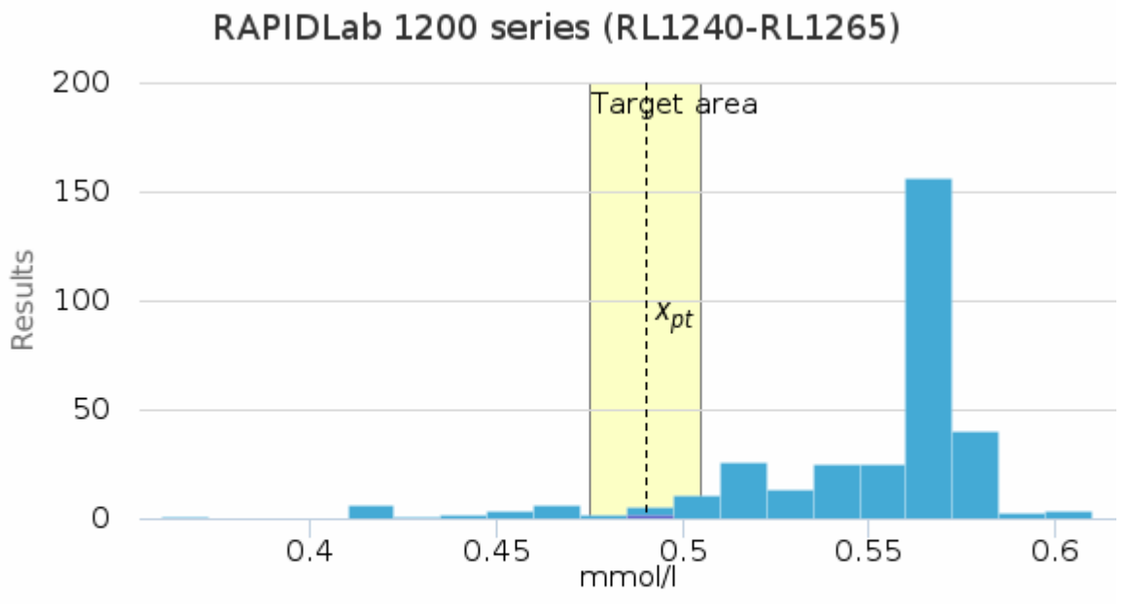


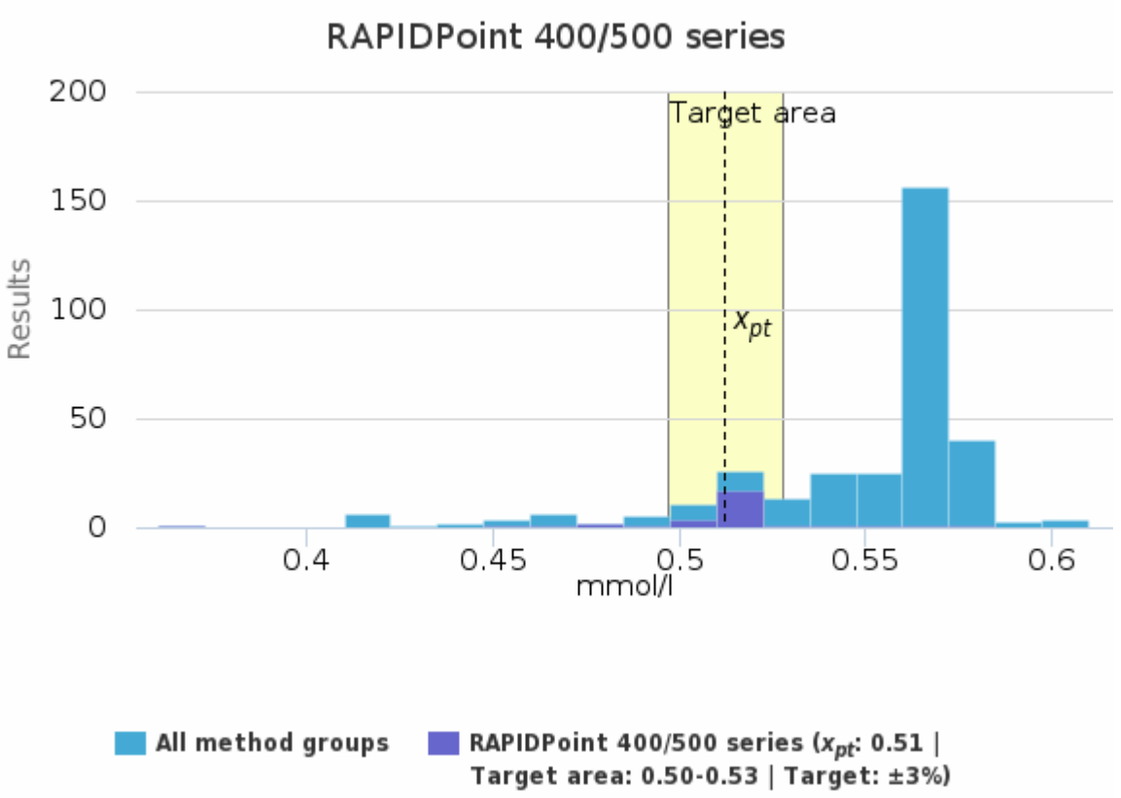




Acid-base status and electrolytes, February, 1-2023



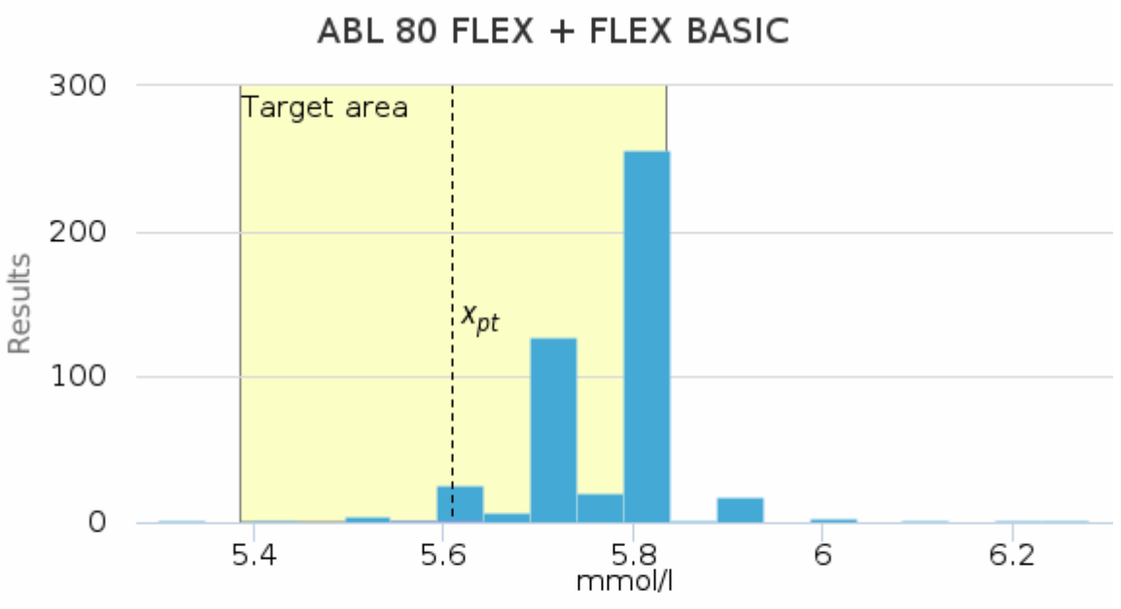


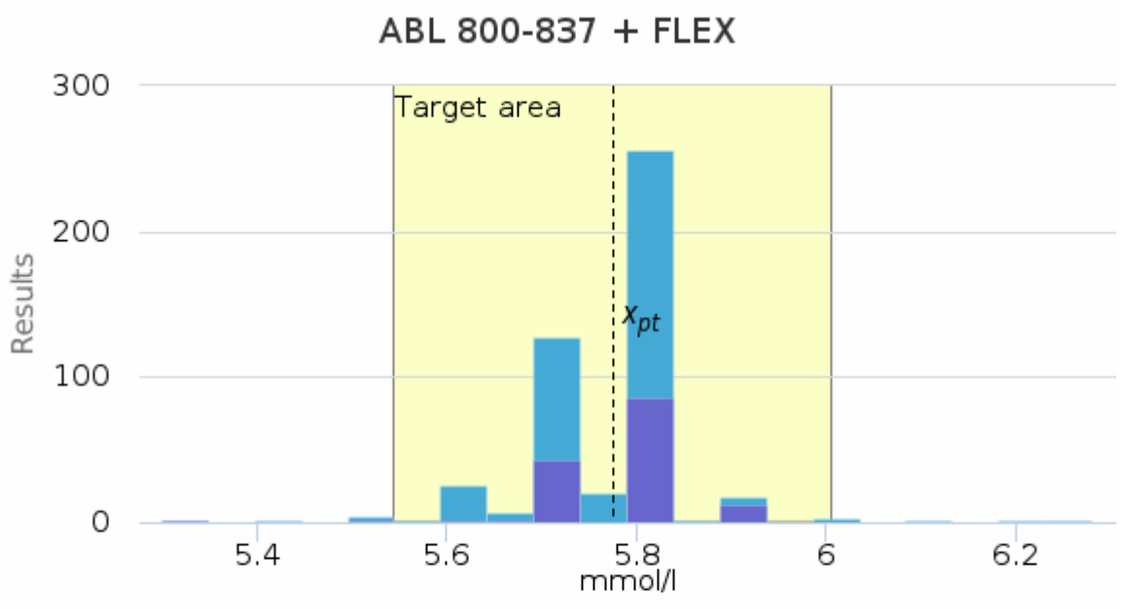


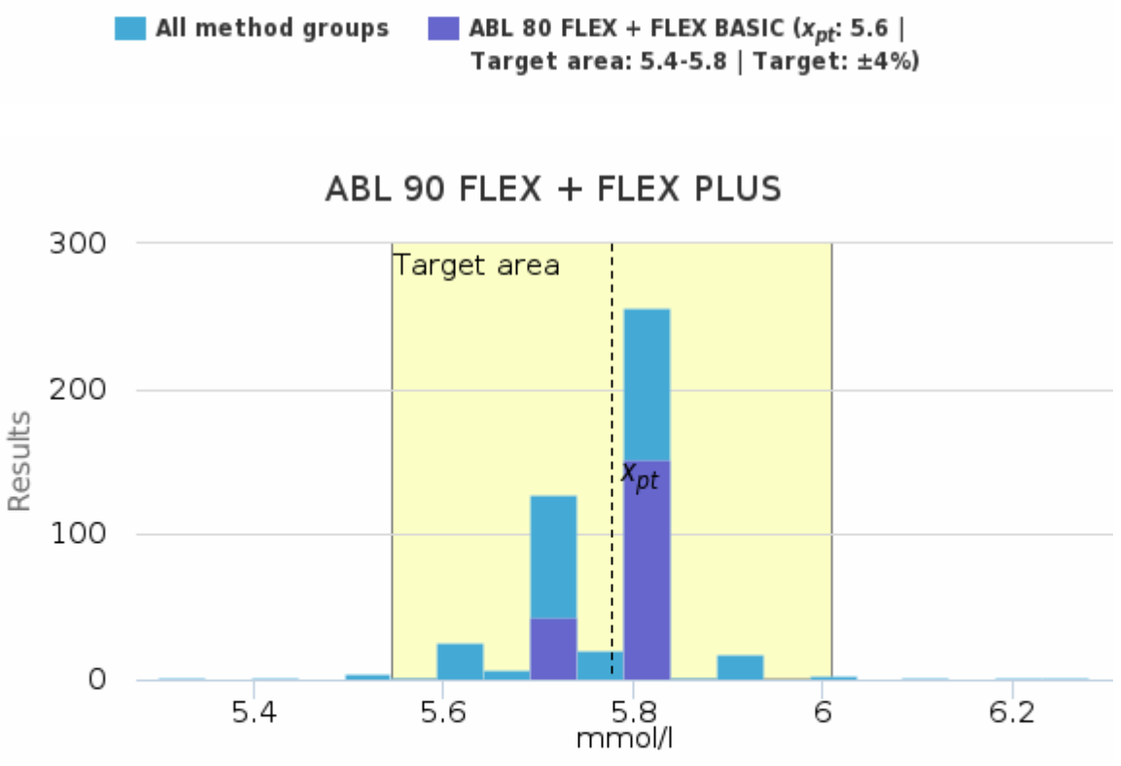
Sample S003 | K, mmol/l

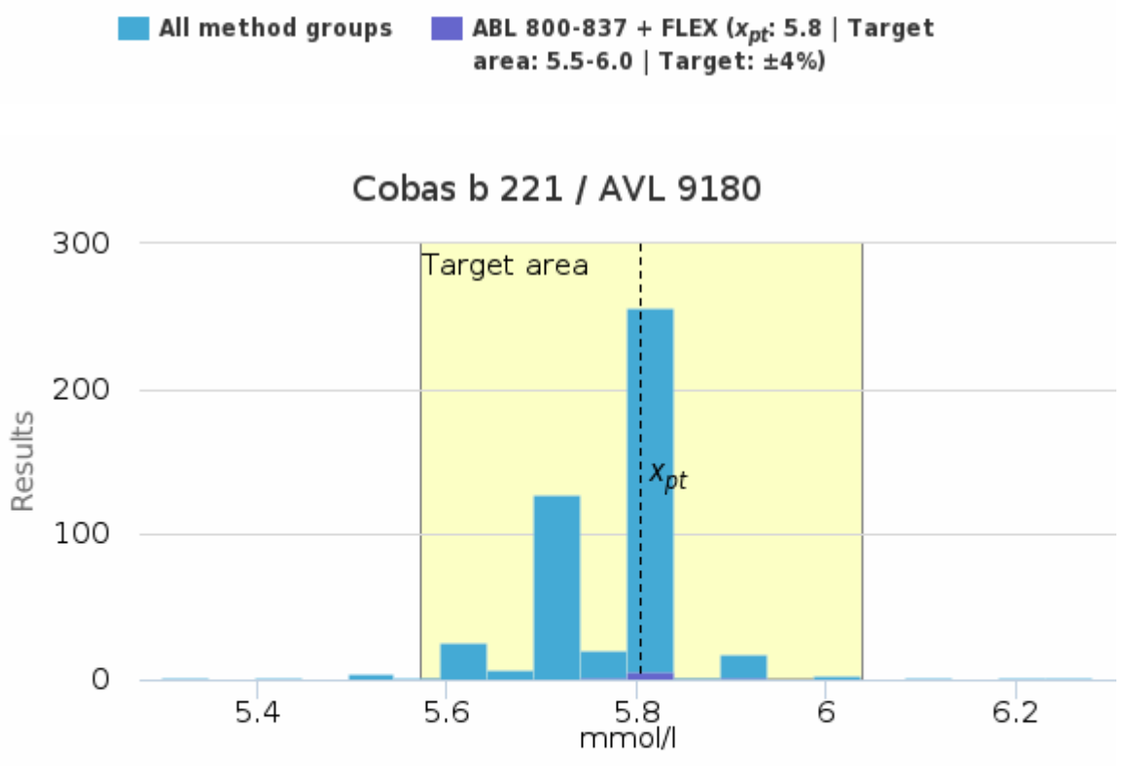
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	5.6	5.6	<0.1	0.5	<0.1	5.6	5.6	-	2
ABL 800-837 + FLEX	5.8	5.8	<0.1	1.1	<0.1	5.6	5.9	2	146
ABL 90 FLEX + FLEX PLUS	5.8	5.8	<0.1	0.7	<0.1	5.7	5.8	-	195
Cobas b 221 / AVL 9180	5.8	5.8	<0.1	0.7	<0.1	5.8	5.9	-	8
epoc Blood Analysis System	6.0	6.0	0.1	1.8	<0.1	5.9	6.2	-	9
Gem Premier 3000-3500	5.6	5.6	<0.1	0.8	<0.1	5.5	5.6	-	10
Gem Premier 4000	5.8	5.8	<0.1	1.7	<0.1	5.7	5.9	-	4
Gem Premier 5000	5.6	5.6	0.1	2.2	<0.1	5.4	5.8	-	10
Indiko Plus	-	-	-	-	-	5.7	5.7	-	1
i-STAT	5.6	5.6	<0.1	0.9	<0.1	5.6	5.7	1	16
i-STAT Alinity	5.7	5.7	<0.1	0.6	<0.1	5.6	5.7	-	8
RAPIDLab 1200 series (RL1240-RL1265)	5.8	5.8	<0.1	1.4	<0.1	5.7	5.9	-	4
RAPIDPoint 400/500 series	5.7	5.7	<0.1	0.7	<0.1	5.7	5.8	1	56
All	**5.8**	**5.8**	**<0.1**	**1.2**	**<0.1**	**5.6**	**6.0**	**10**	**469**

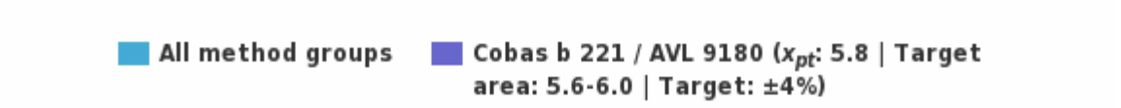
Sample S003 | K, mmol/l| histogram summaries in LabScala



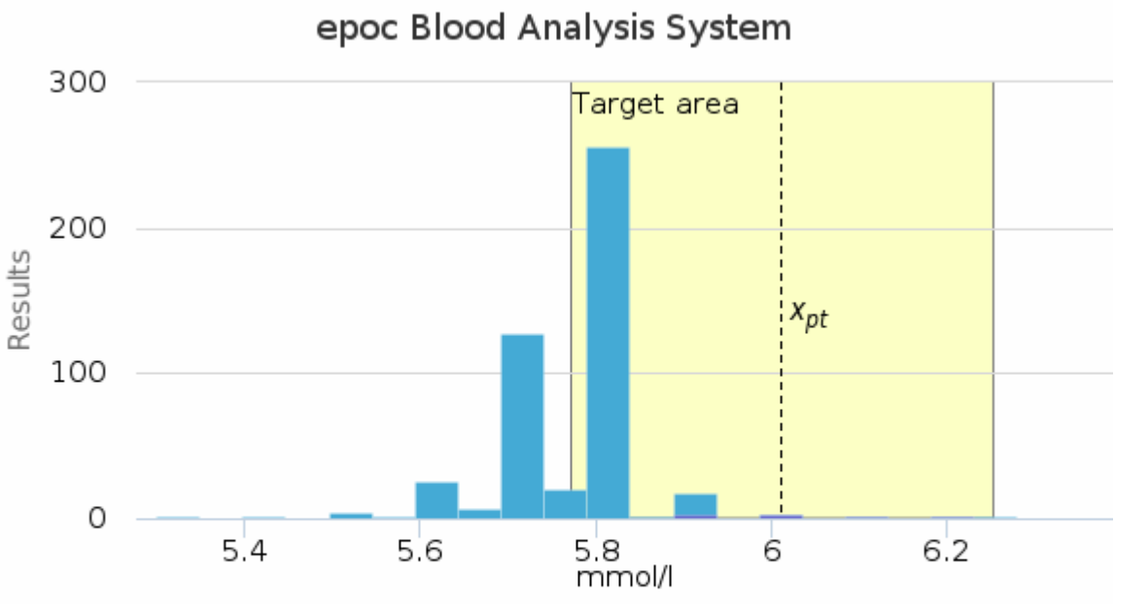


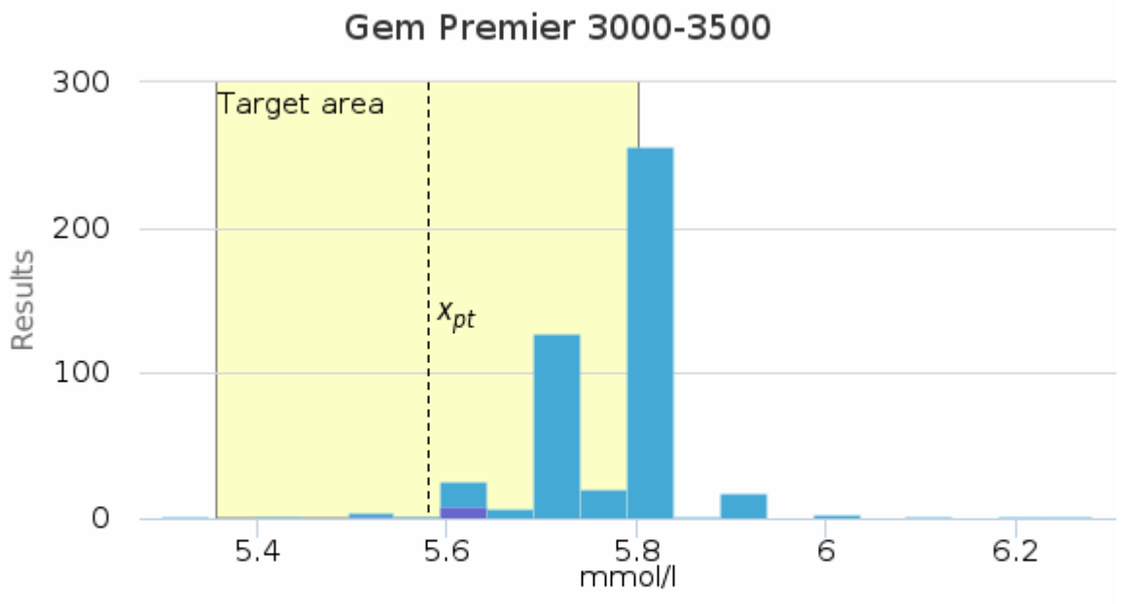


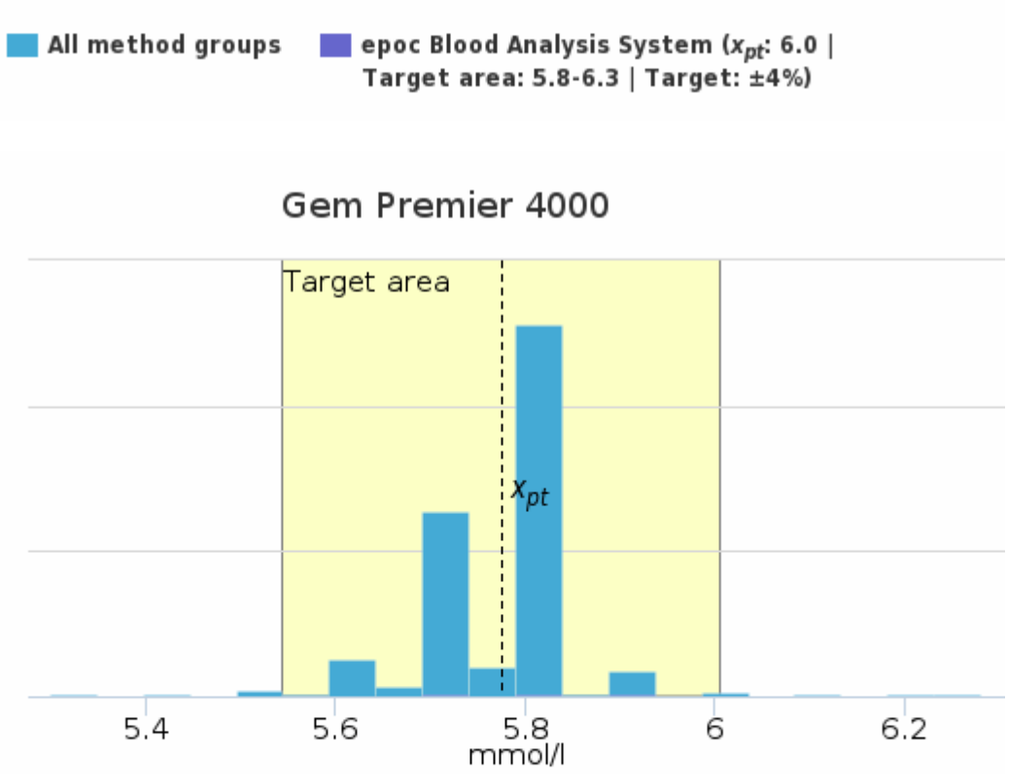


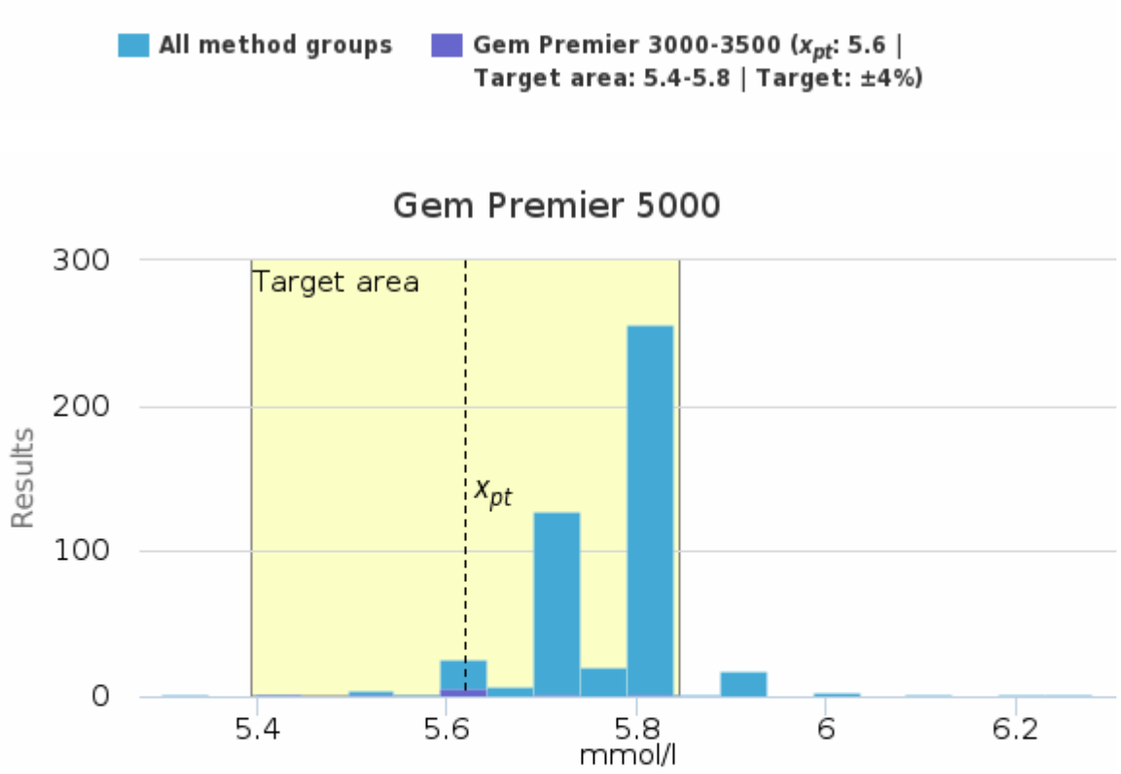


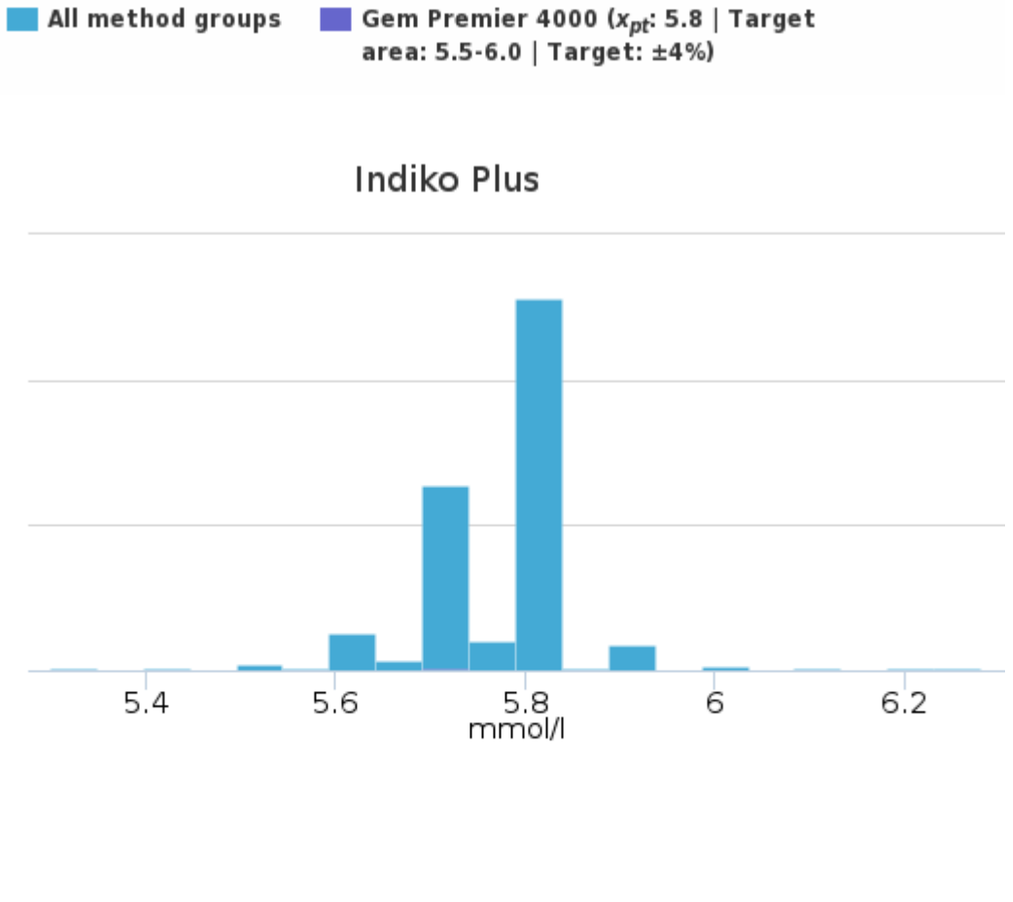
Acid-base status and electrolytes, February, 1-2023

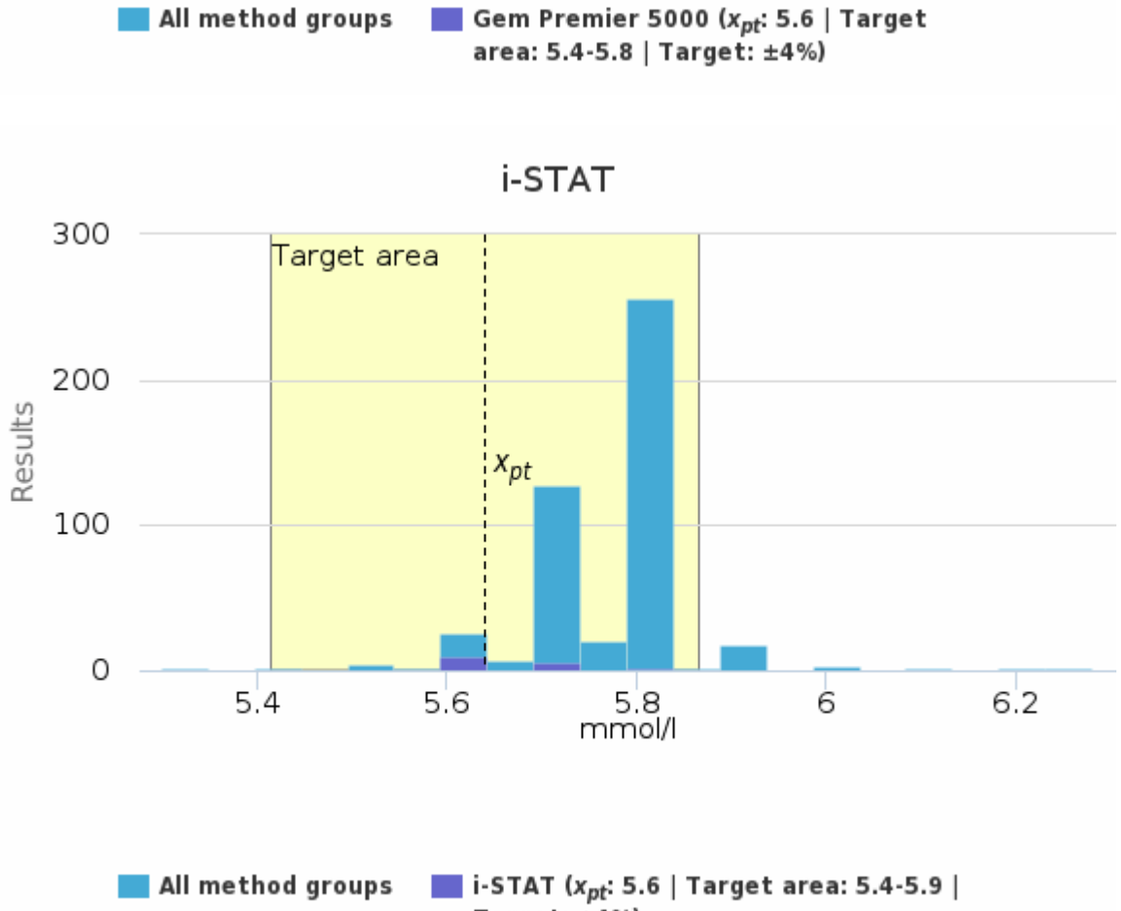




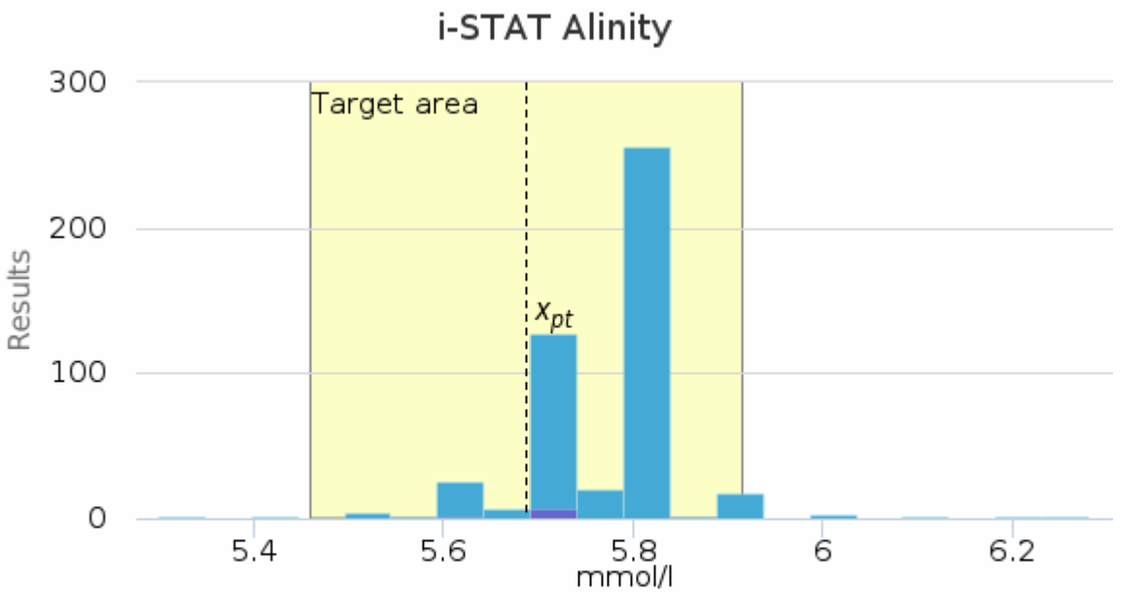


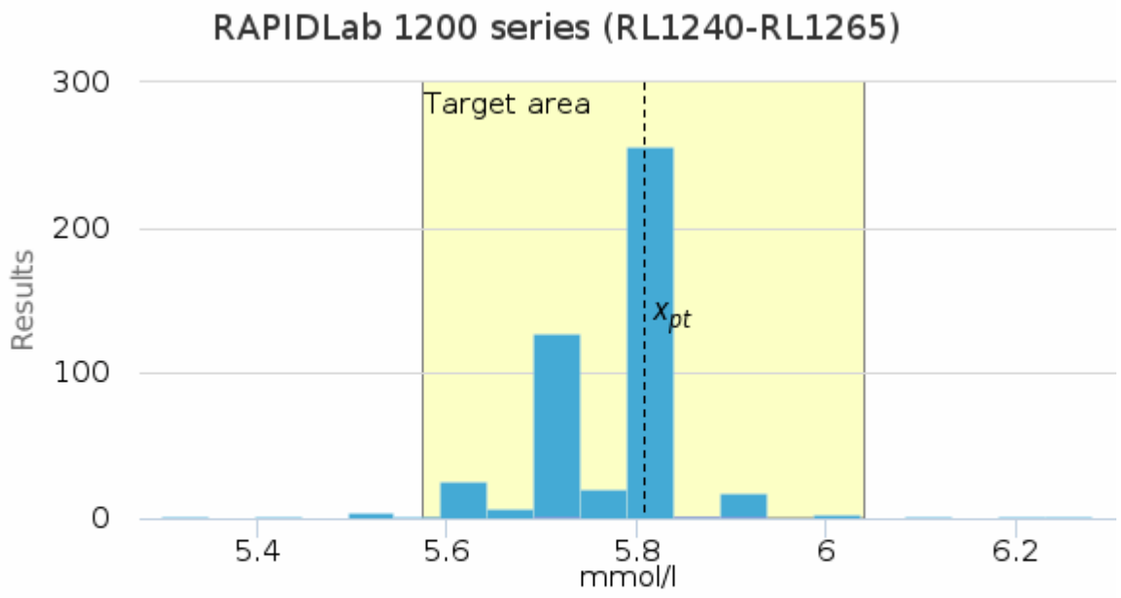


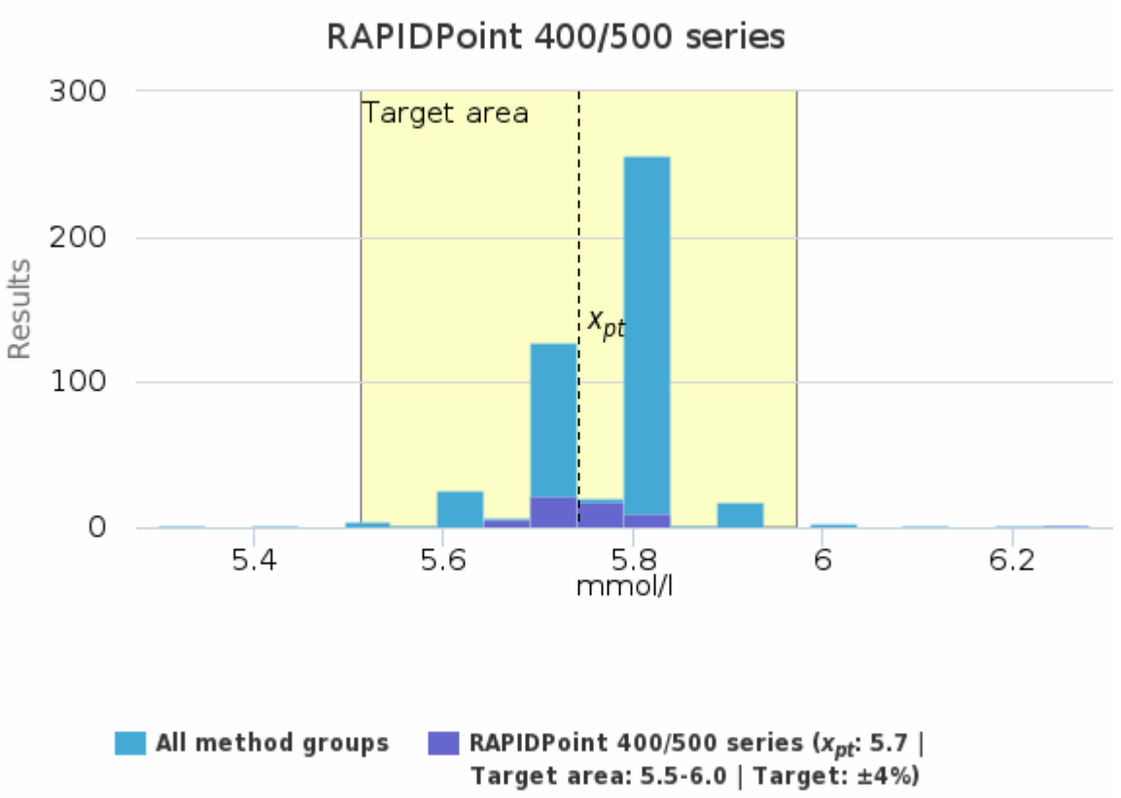




Acid-base status and electrolytes, February, 1-2023



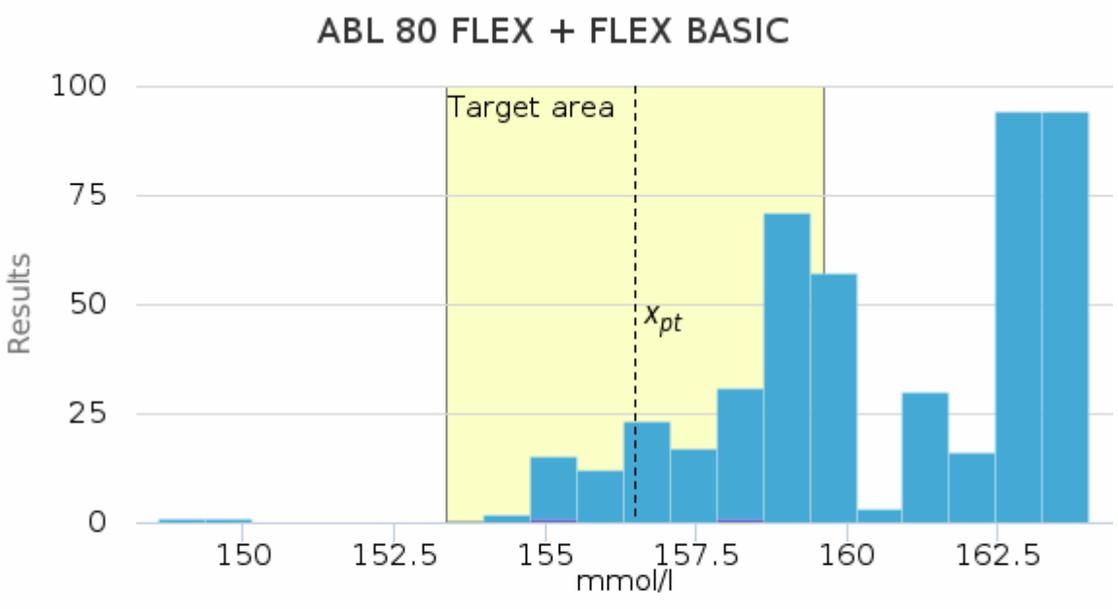


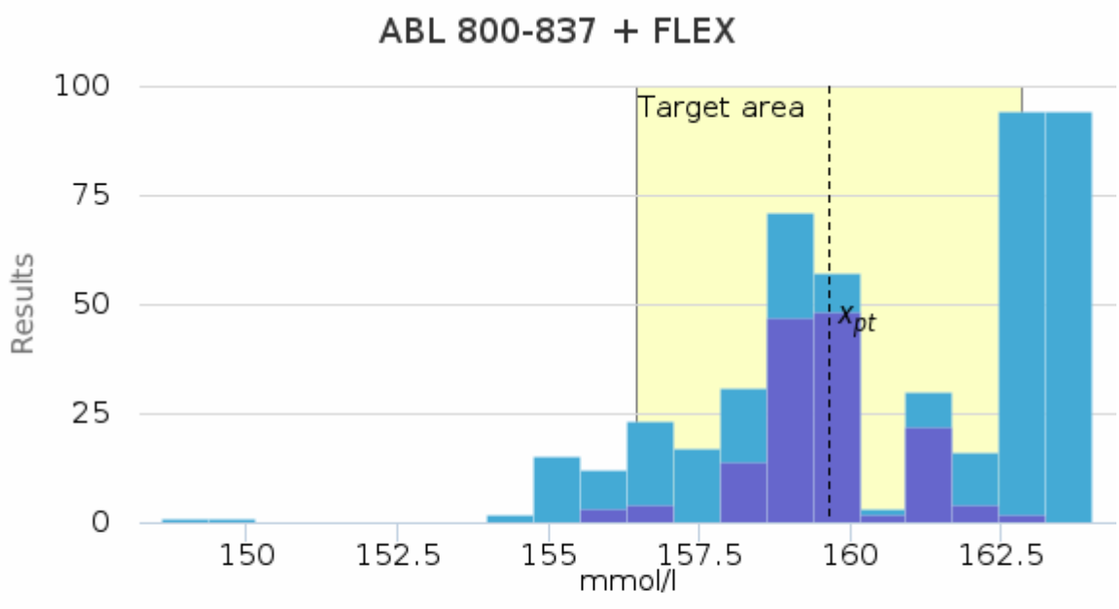


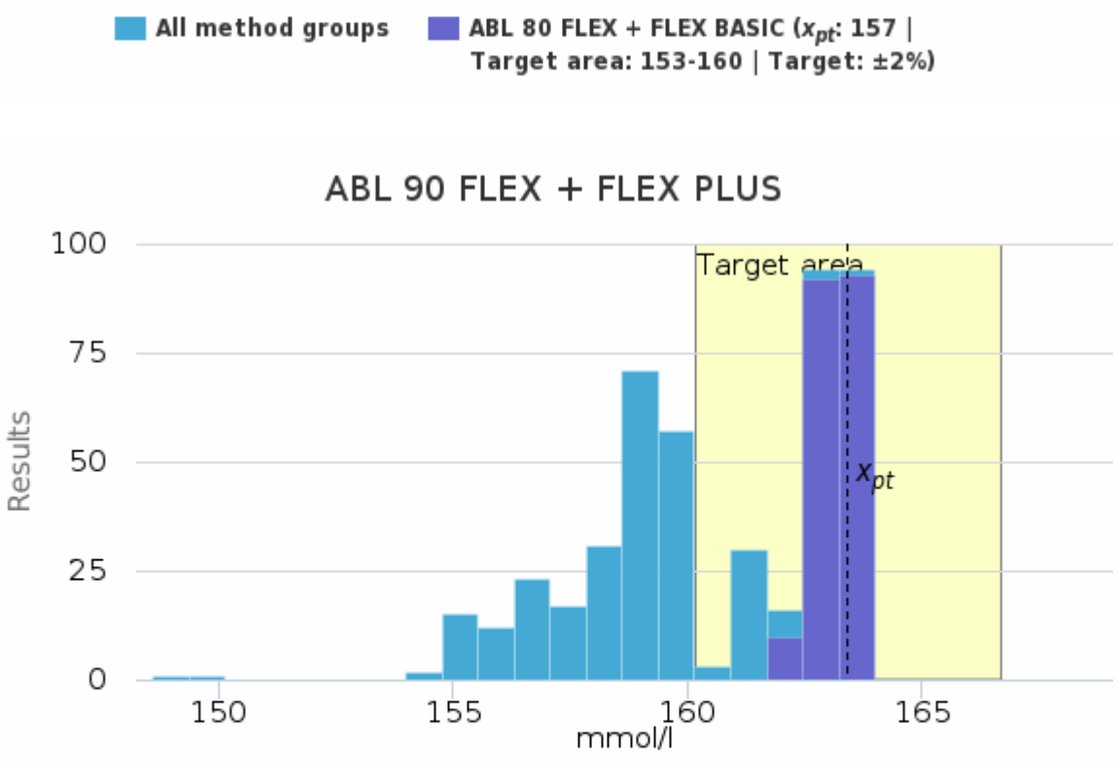
Sample S003 | Na, mmol/l

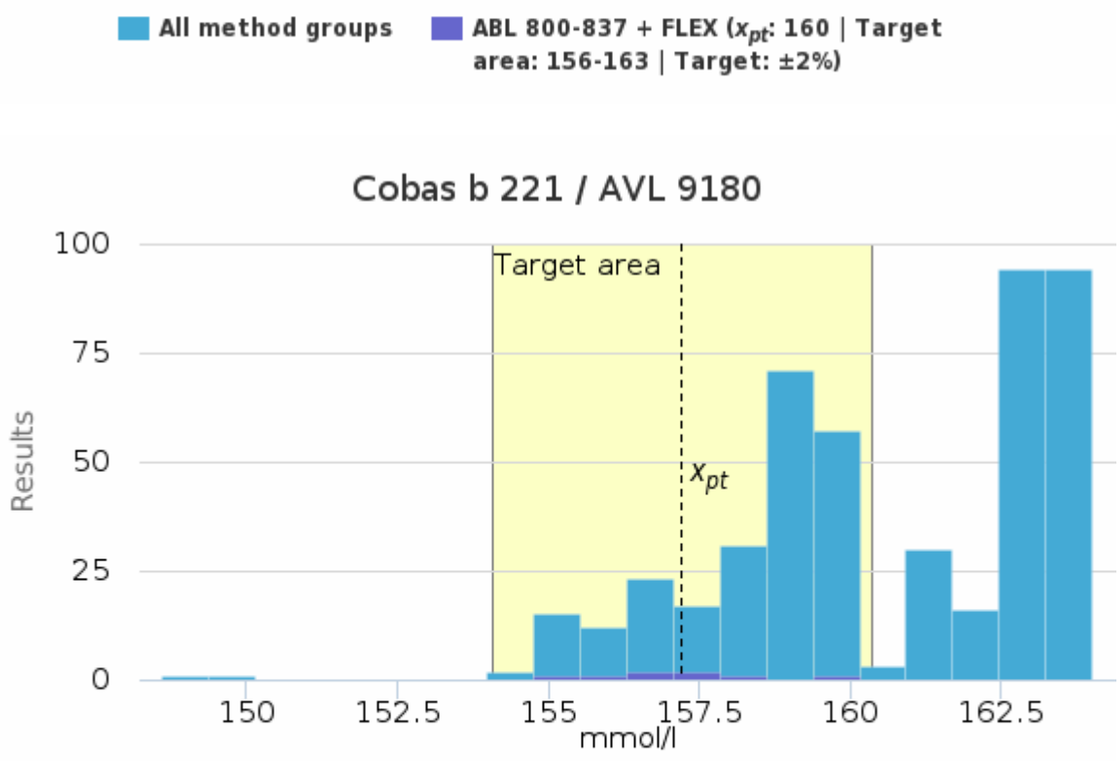
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	157	157	2	1.4	2	155	158	-	2
ABL 800-837 + FLEX	160	160	1	0.7	<1	157	163	3	146
ABL 90 FLEX + FLEX PLUS	163	163	<1	0.4	<1	162	164	-	195
Cobas b 221 / AVL 9180	157	157	1	0.8	<1	156	160	-	8
epoc Blood Analysis System	161	161	<1	0.4	<1	159	161	-	9
Gem Premier 3000-3500	159	159	1	0.7	<1	158	162	-	10
Gem Premier 4000	155	155	<1	0.3	<1	155	156	-	4
Gem Premier 5000	158	159	2	1.0	<1	155	160	-	10
Indiko Plus	-	-	-	-	-	155	155	-	1
i-STAT	159	159	2	1.1	<1	158	164	-	14
i-STAT Alinity	159	159	<1	0.3	<1	158	159	-	8
RAPIDLab 1200 series (RL1240-RL1265)	153	153	4	2.8	2	149	157	-	4
RAPIDPoint 400/500 series	157	157	1	0.8	<1	154	160	1	56
All	**161**	**161**	**3**	**1.7**	**<1**	**154**	**164**	**2**	**467**

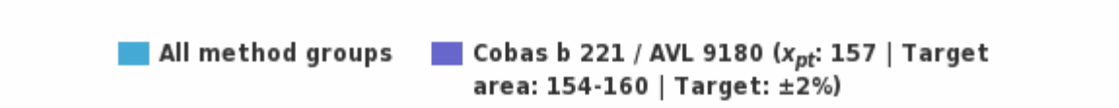
Sample S003 | Na, mmol/l| histogram summaries in LabScala



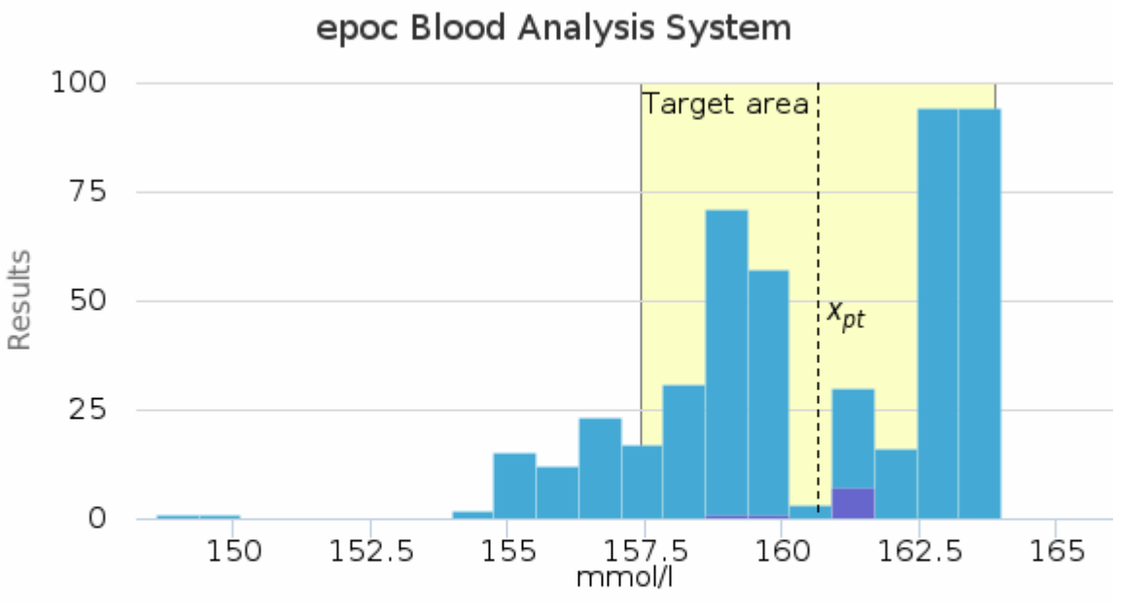


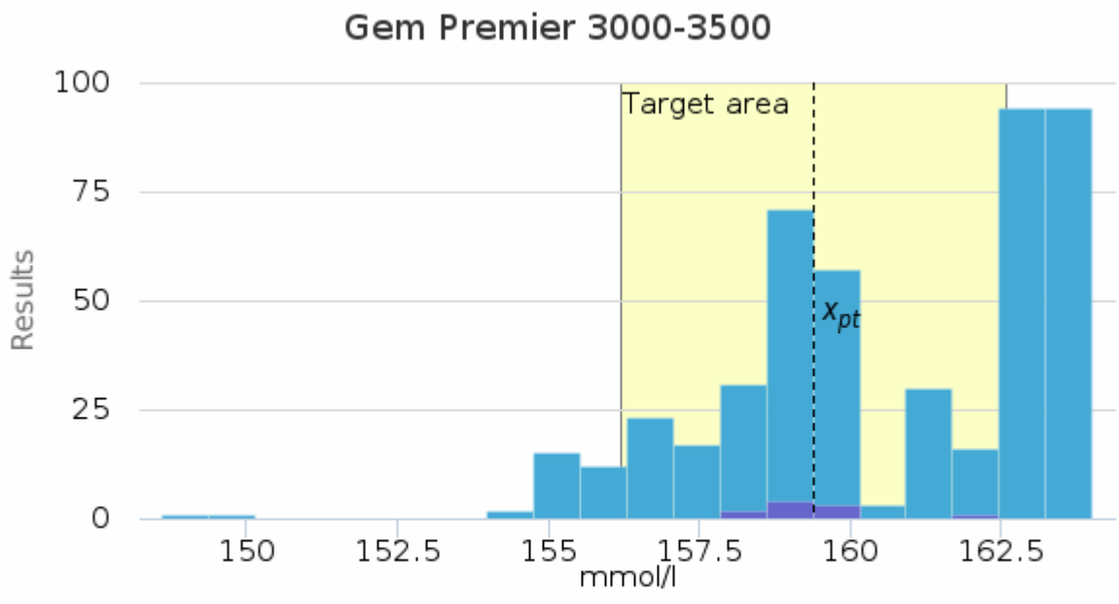


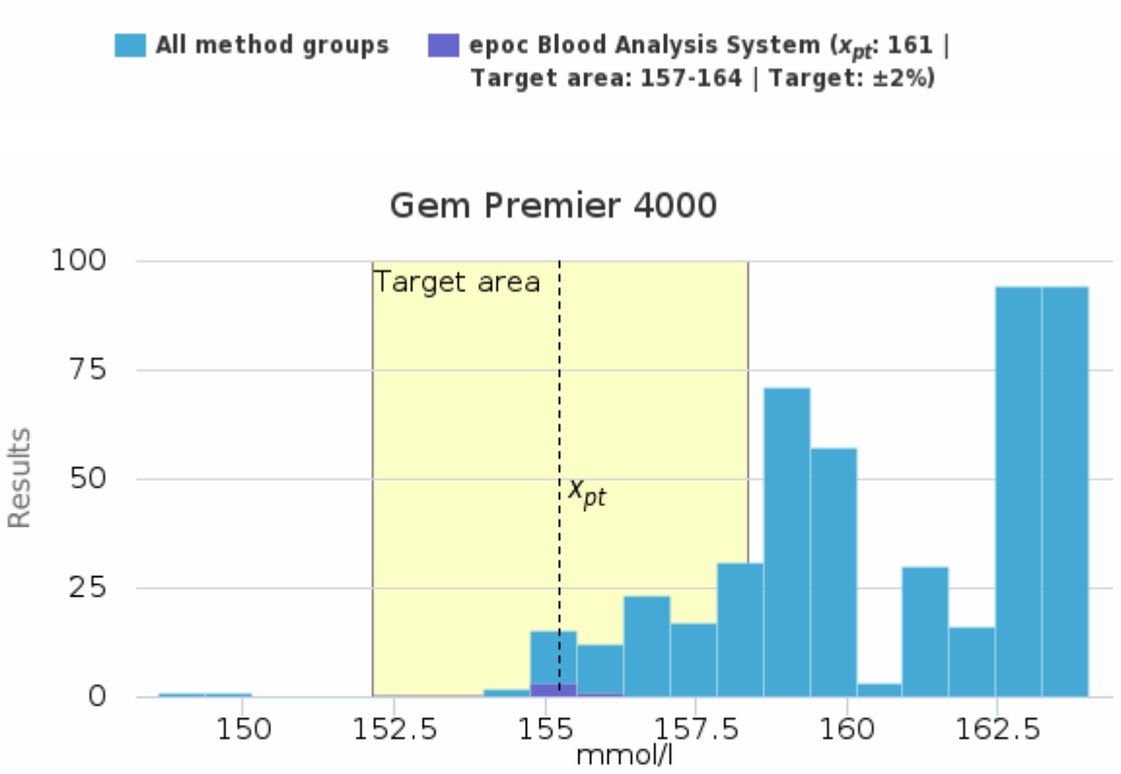


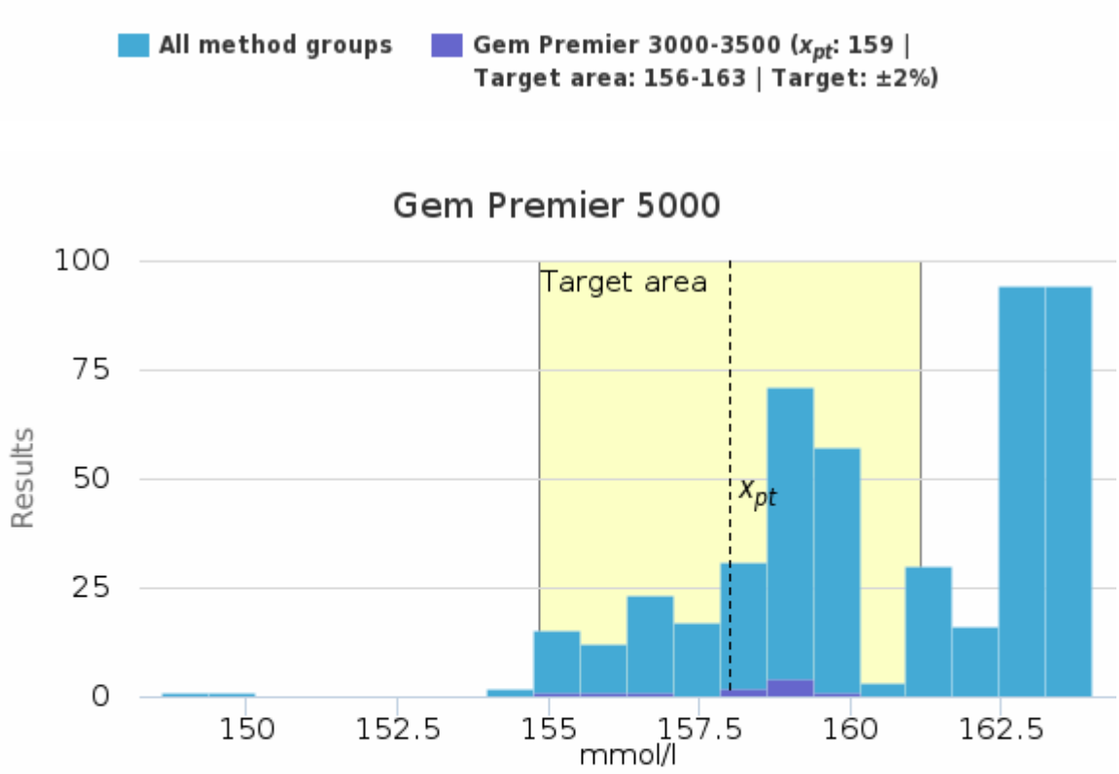


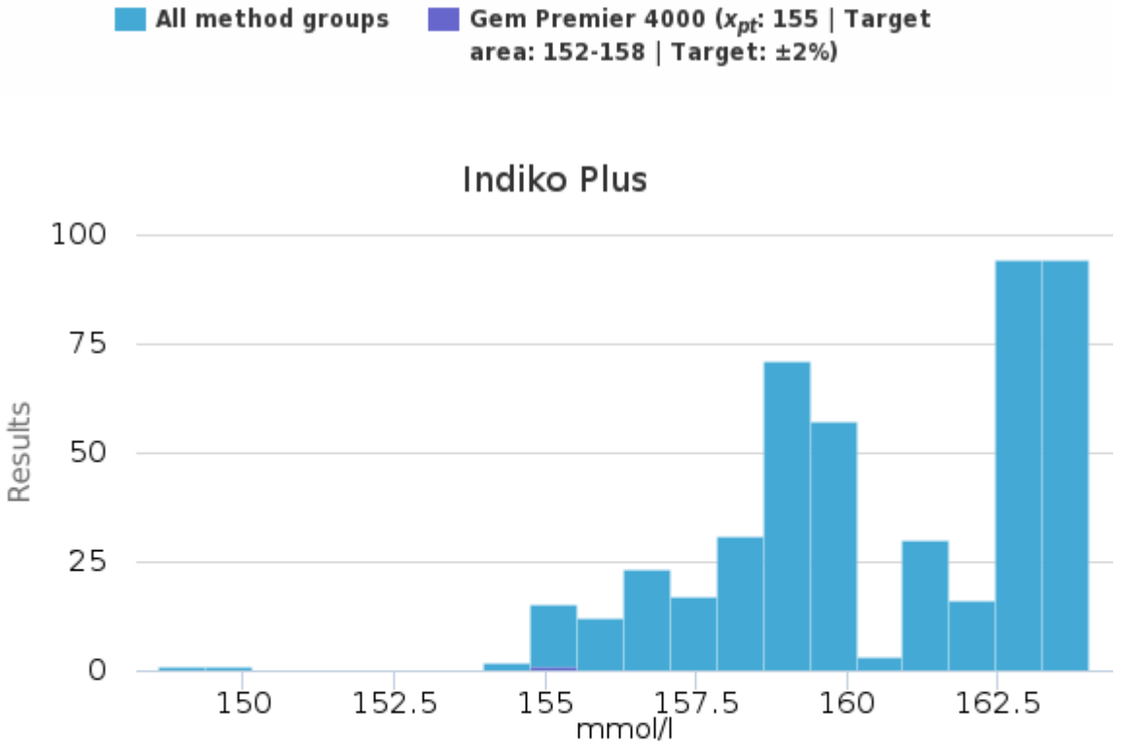
Acid-base status and electrolytes, February, 1-2023

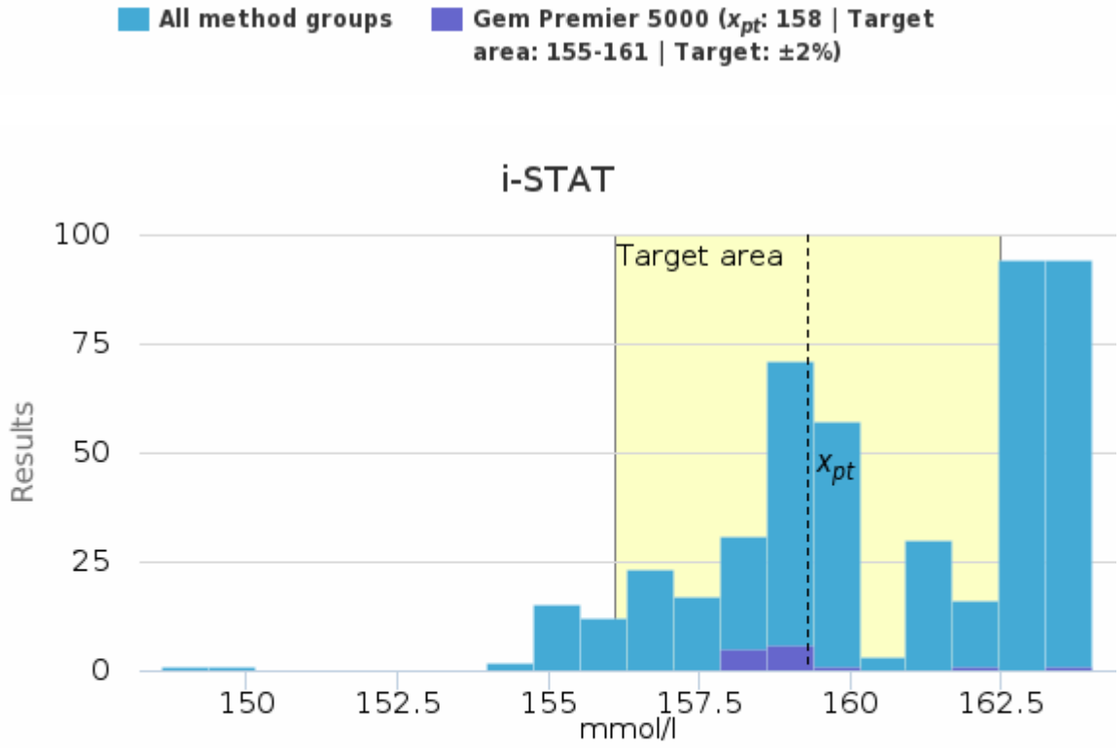




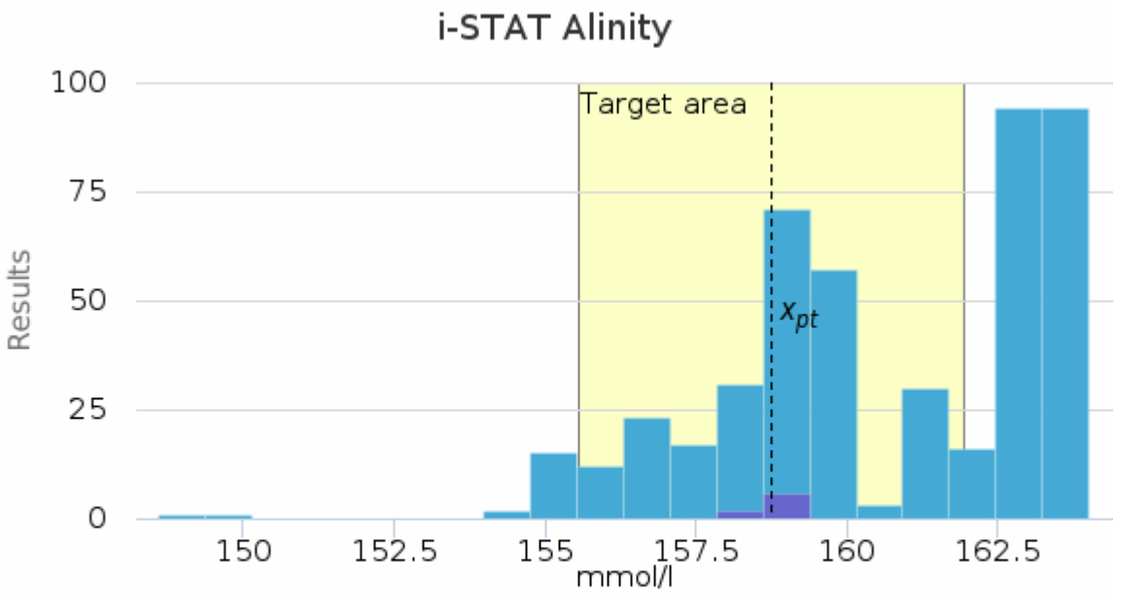


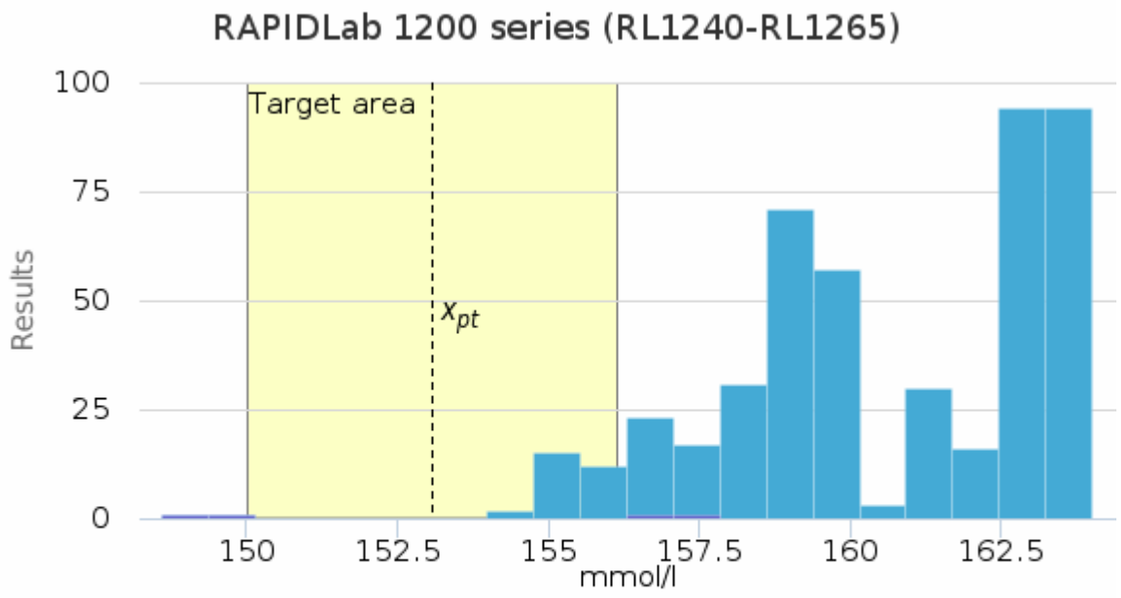


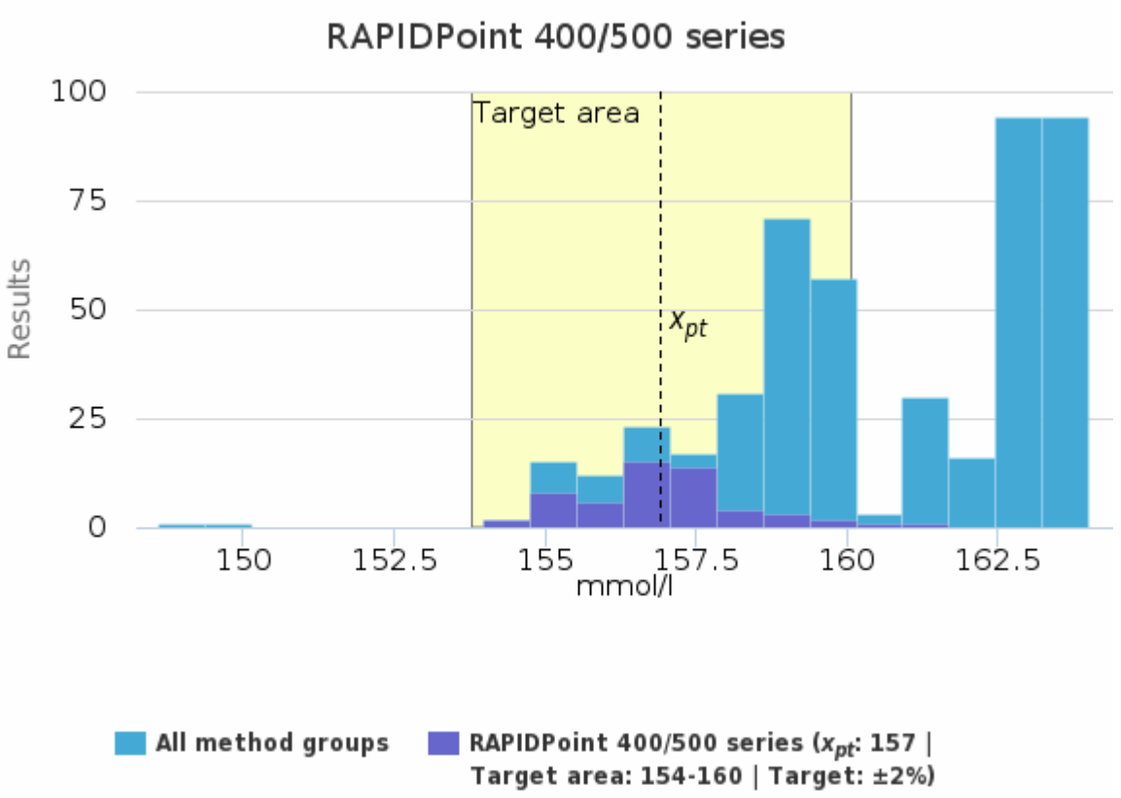




Acid-base status and electrolytes, February, 1-2023



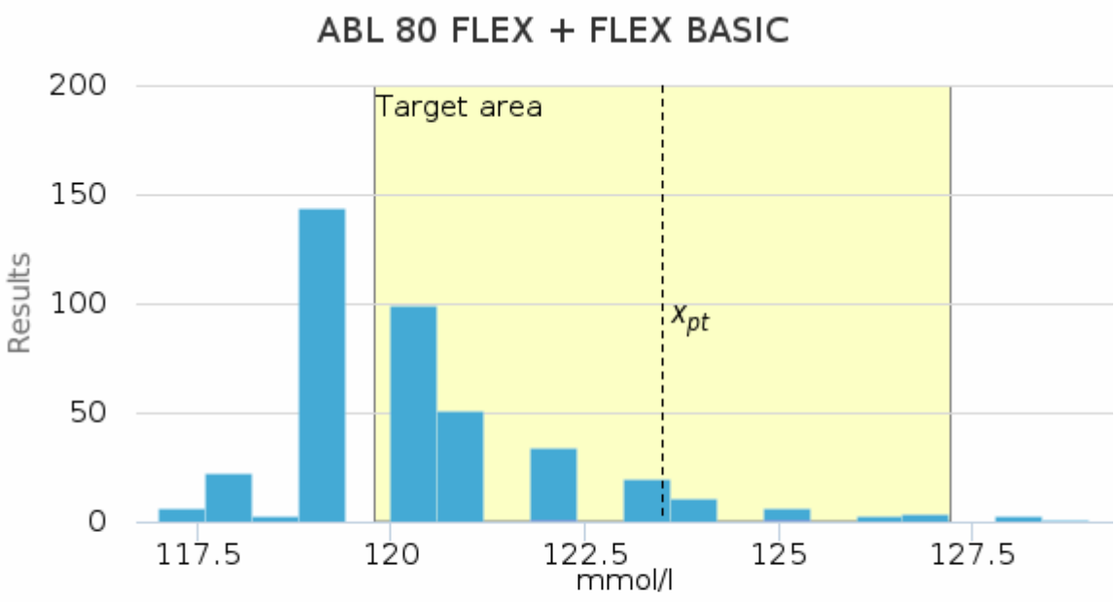


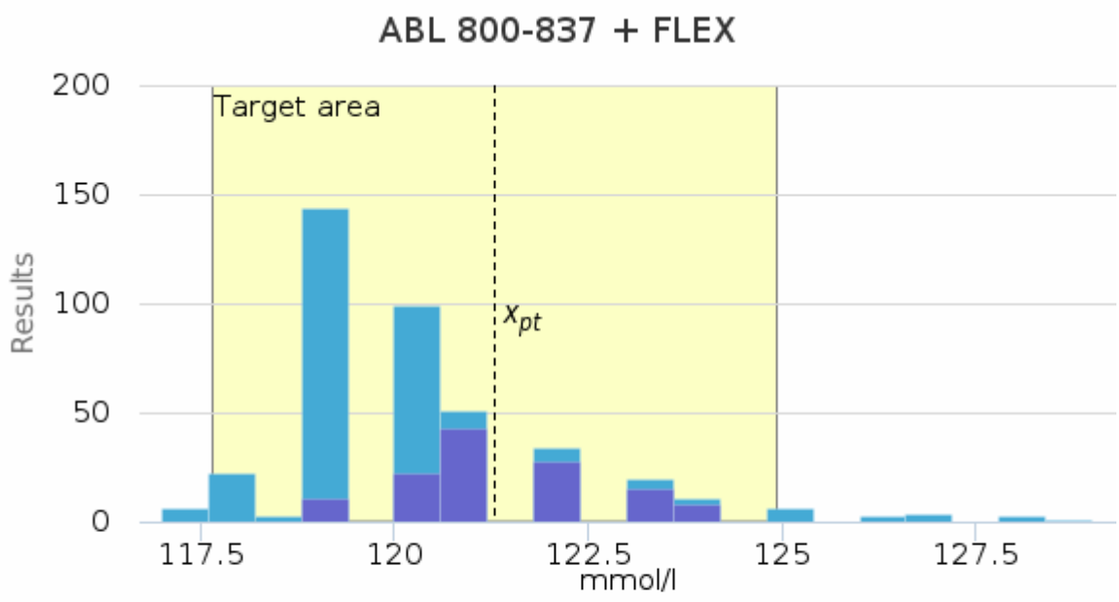


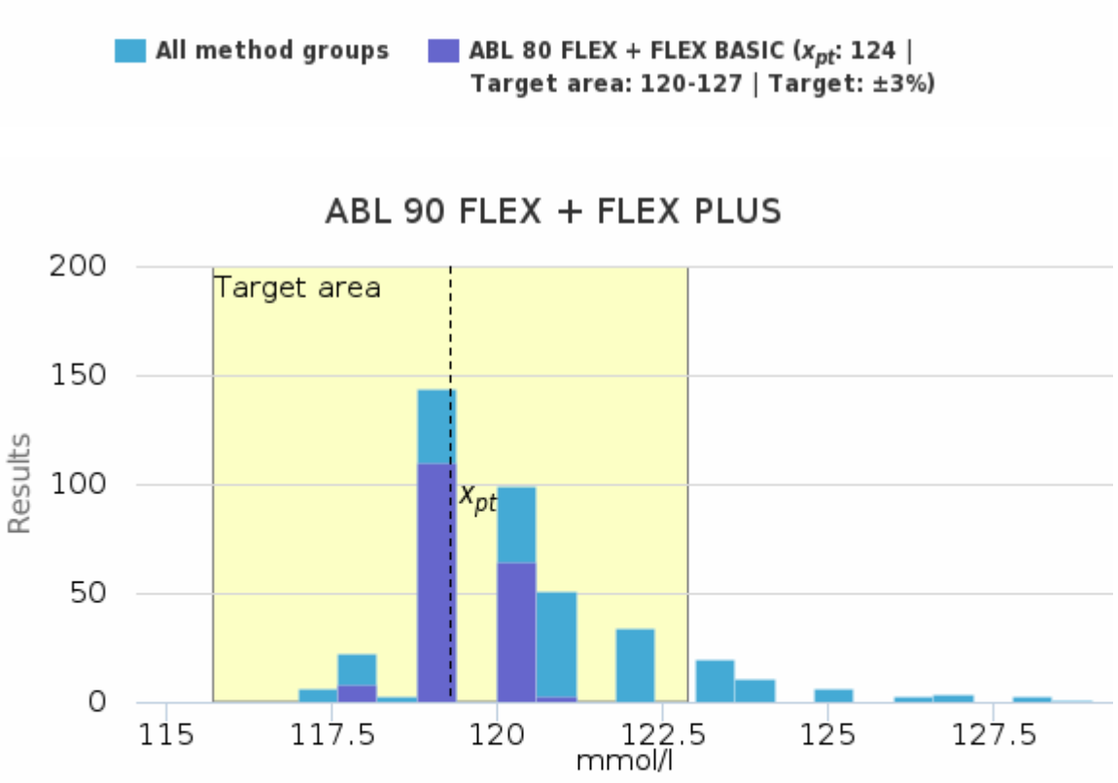
Sample S003 | Cl, mmol/l

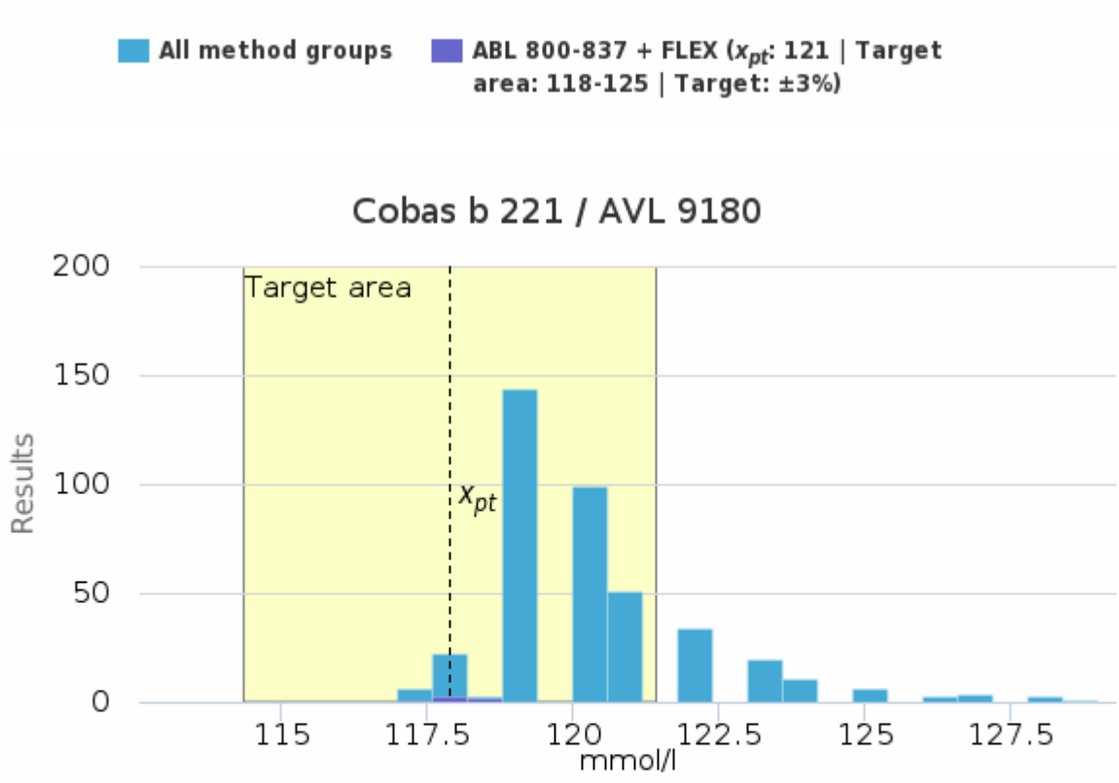
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	124	124	2	1.7	2	122	125	-	2
ABL 800-837 + FLEX	121	121	1	1.1	<1	119	124	-	127
ABL 90 FLEX + FLEX PLUS	119	119	<1	0.5	<1	118	120	3	185
Cobas b 221 / AVL 9180	118	118	<1	0.4	<1	117	118	-	6
epoc Blood Analysis System	127	127	1	1.0	<1	125	129	-	8
Gem Premier 4000	127	128	1	1.1	<1	125	128	-	4
Gem Premier 5000	123	123	2	1.3	<1	122	127	-	9
Indiko Plus	-	-	-	-	-	118	118	-	1
i-STAT	124	124	2	1.4	<1	120	125	-	8
i-STAT Alinity	-	-	-	-	-	123	123	-	1
RAPIDLab 1200 series (RL1240-RL1265)	121	121	<1	0.6	<1	120	121	-	2
RAPIDPoint 400/500 series	119	119	1	0.9	<1	117	121	-	54
All	**120**	**120**	**2**	**1.3**	**<1**	**117**	**125**	**11**	**407**

Sample S003 | Cl, mmol/l| histogram summaries in LabScala

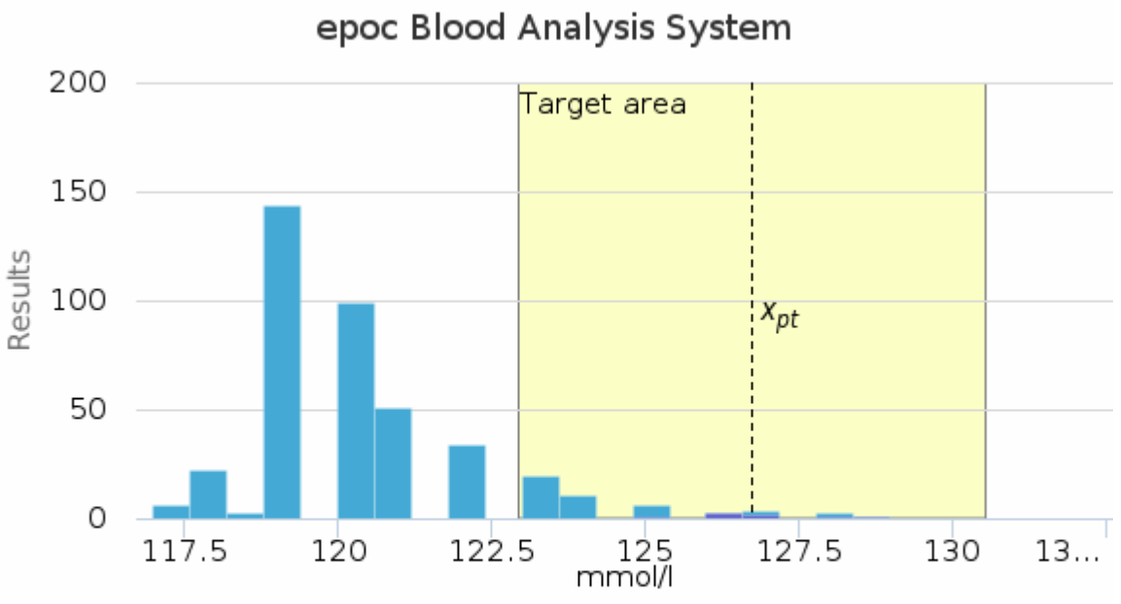


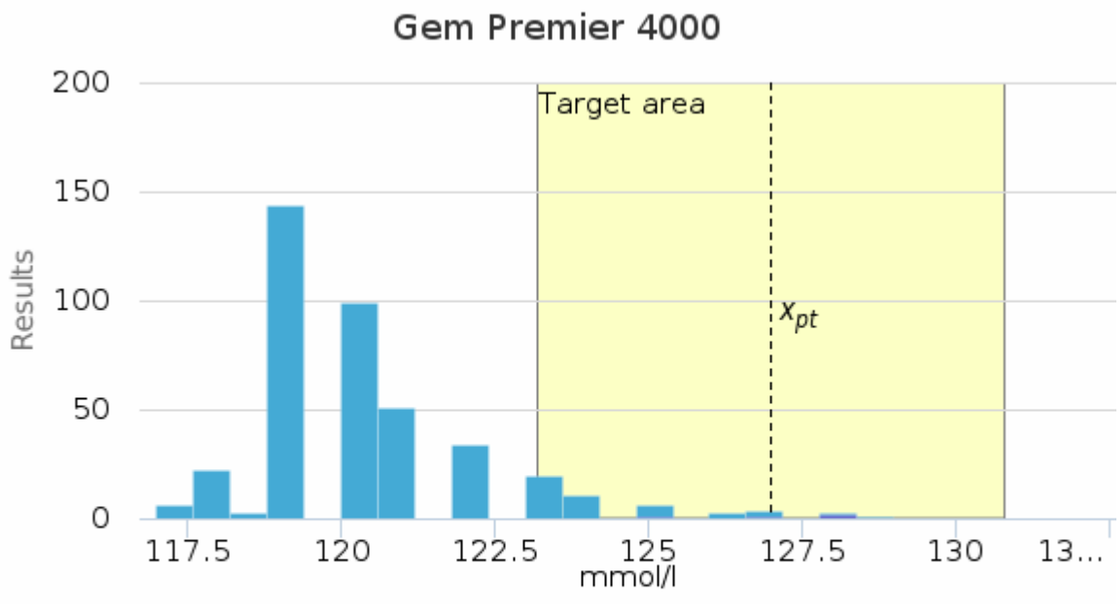


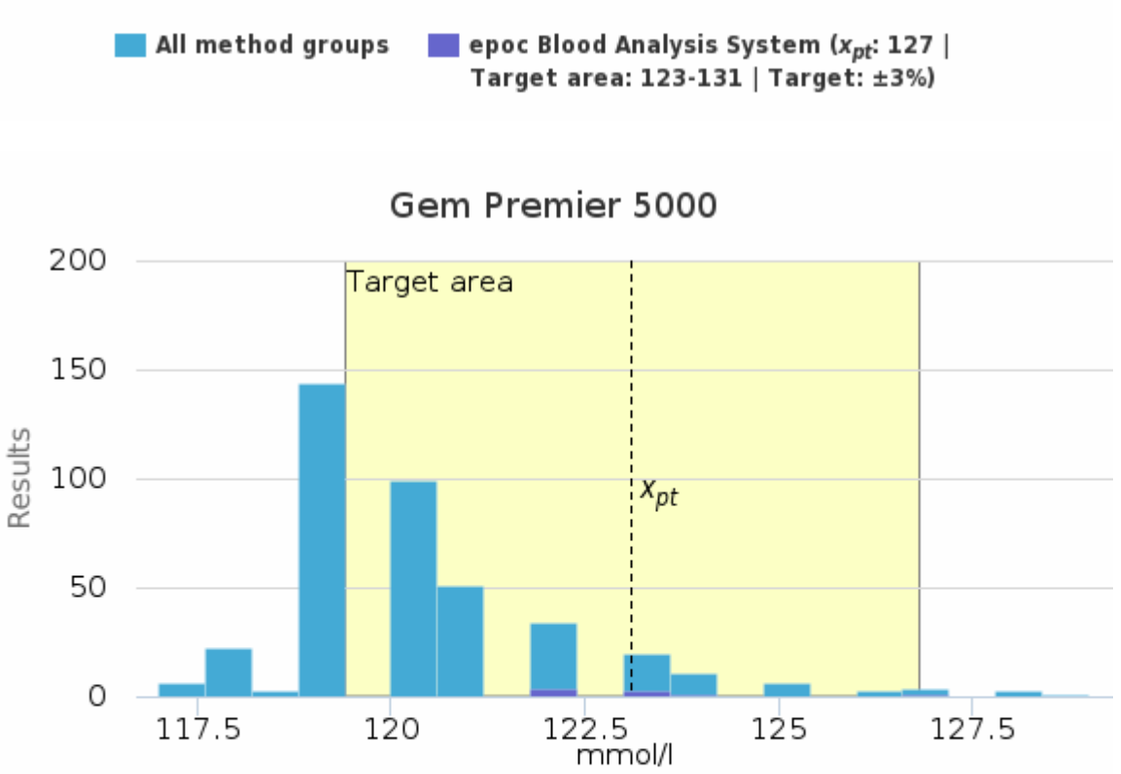


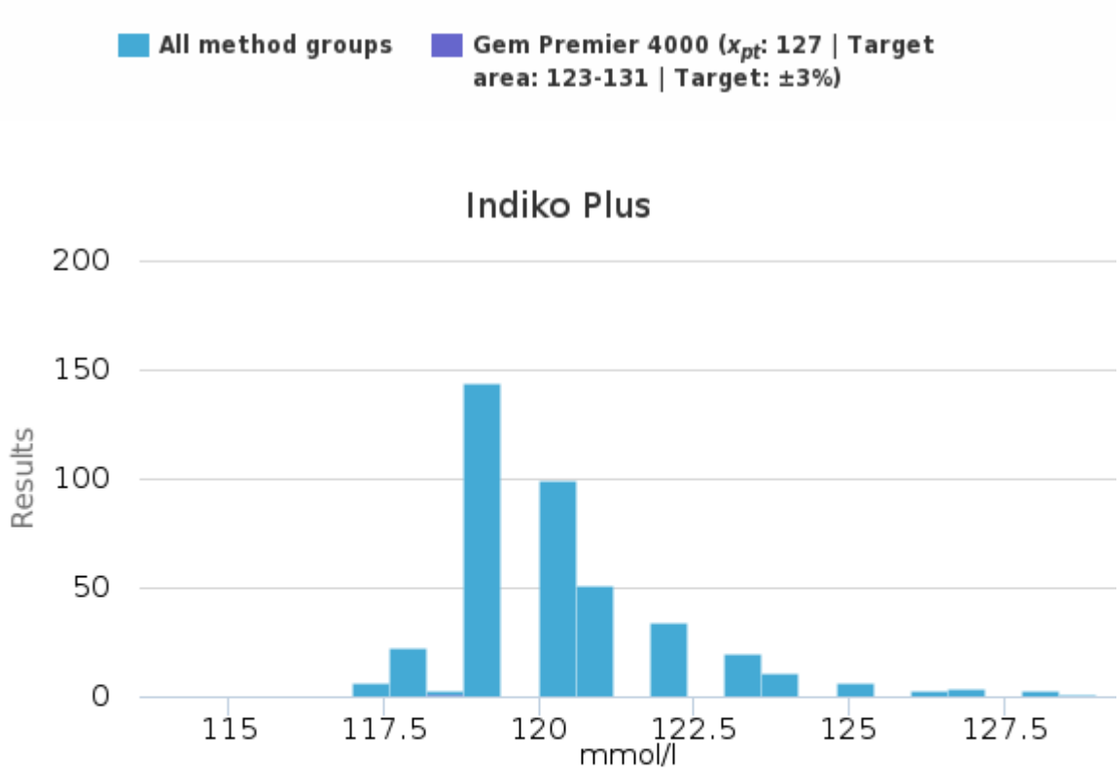


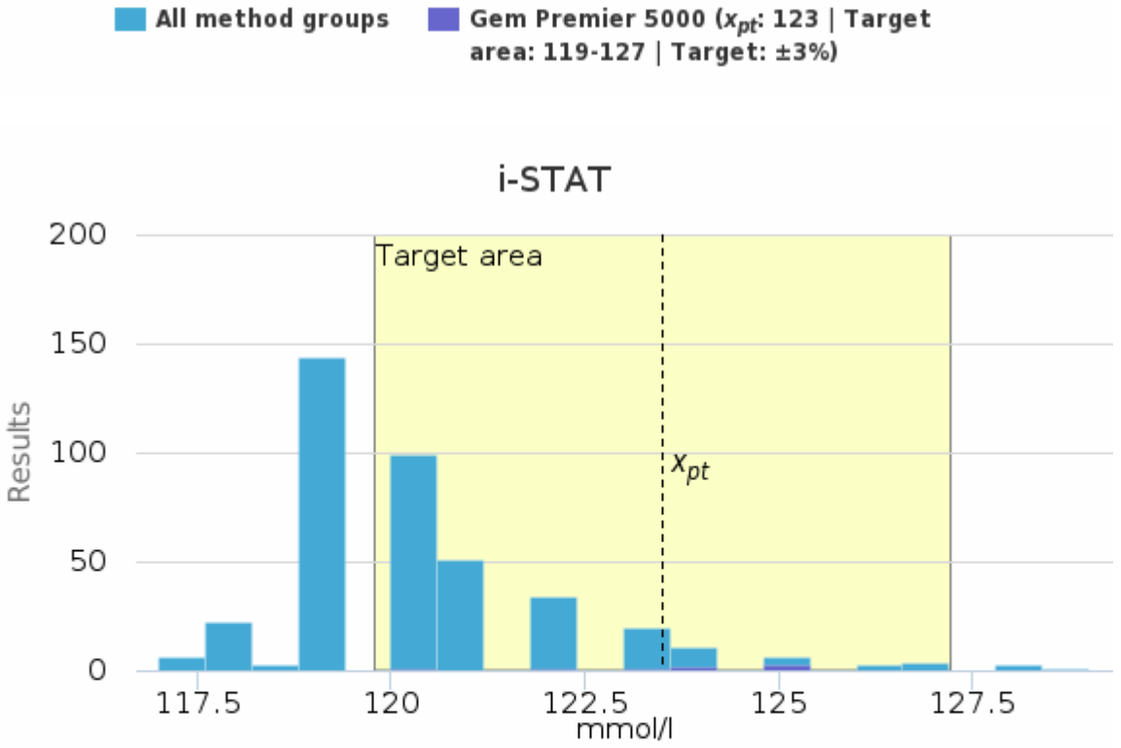
Acid-base status and electrolytes, February, 1-2023

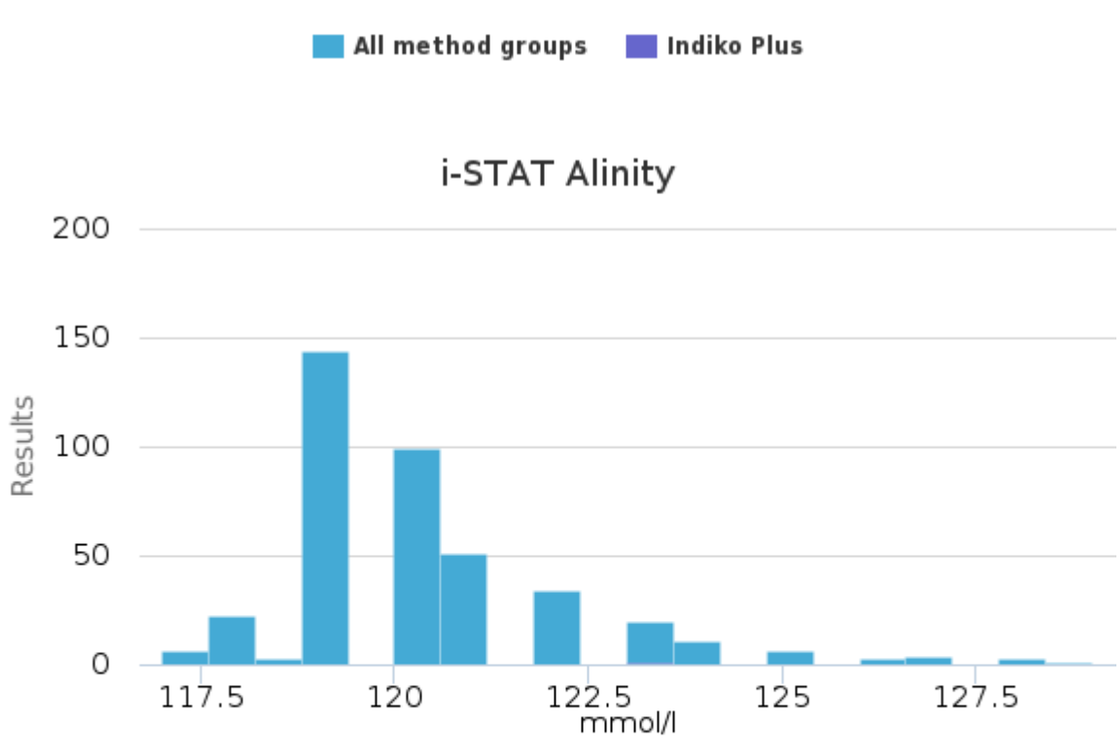




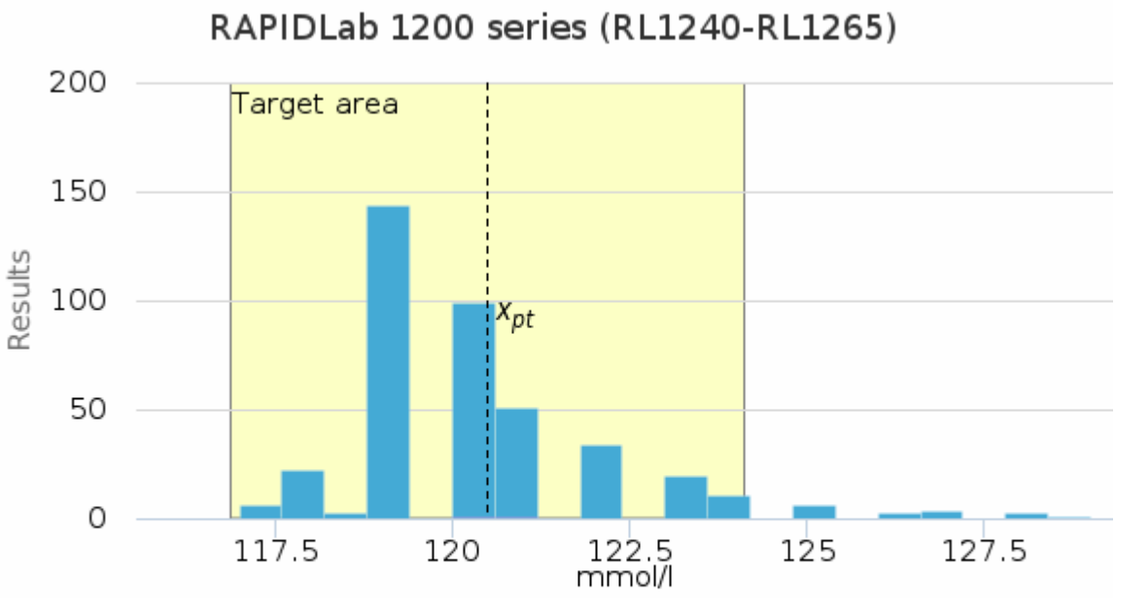


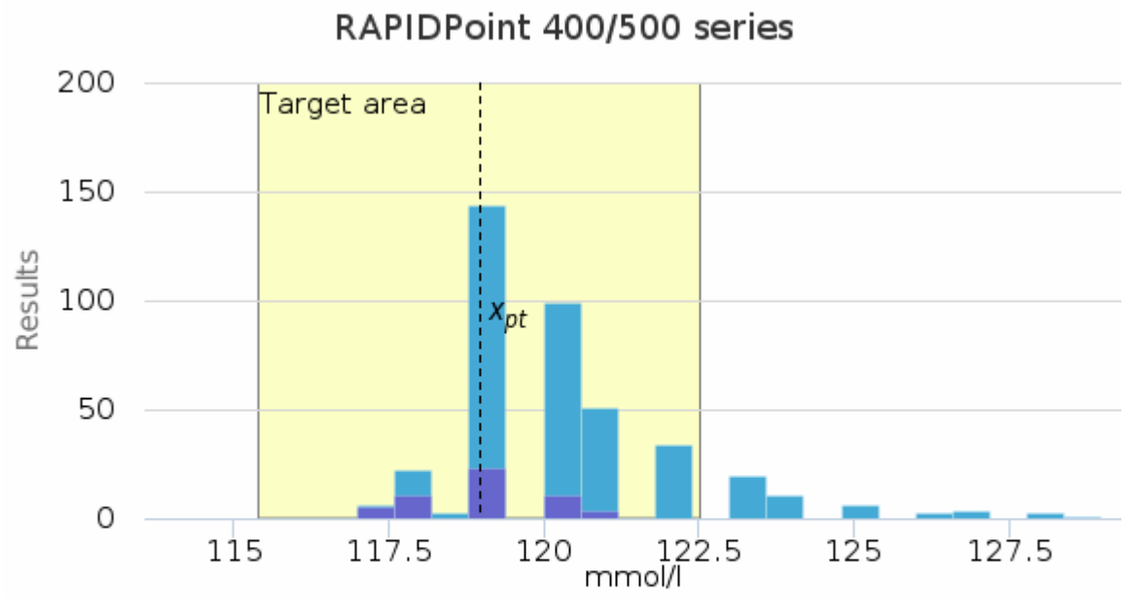






Acid-base status and electrolytes, February, 1-2023

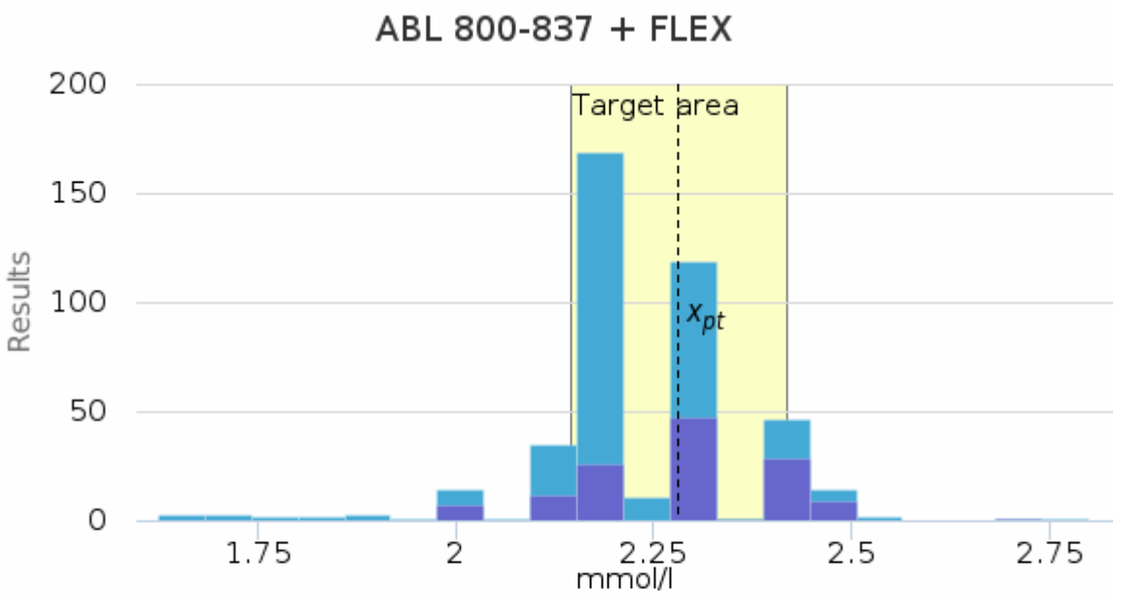


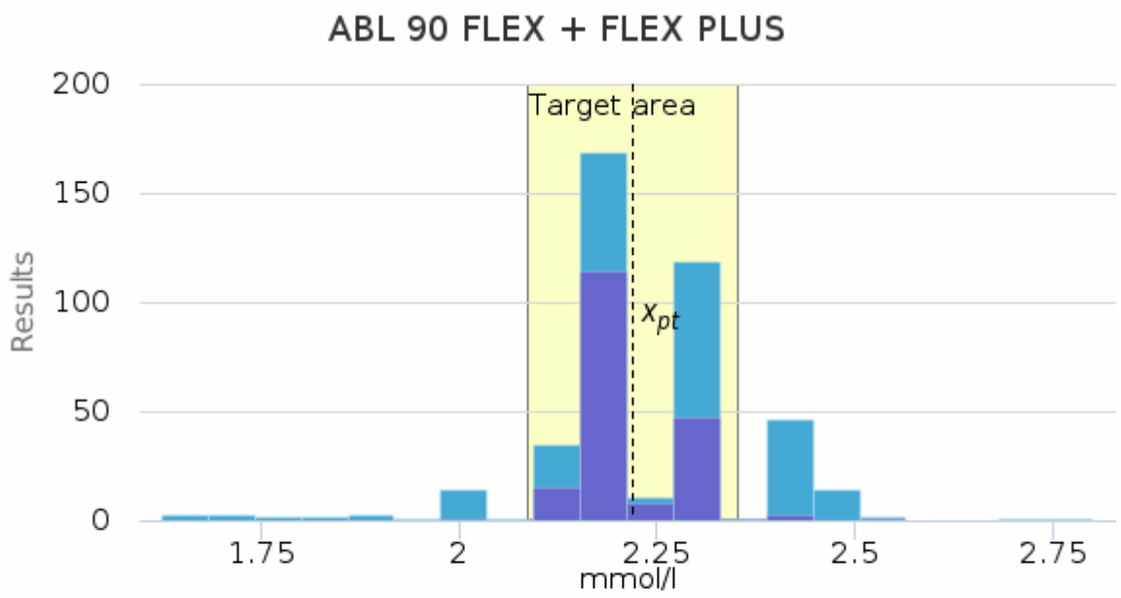


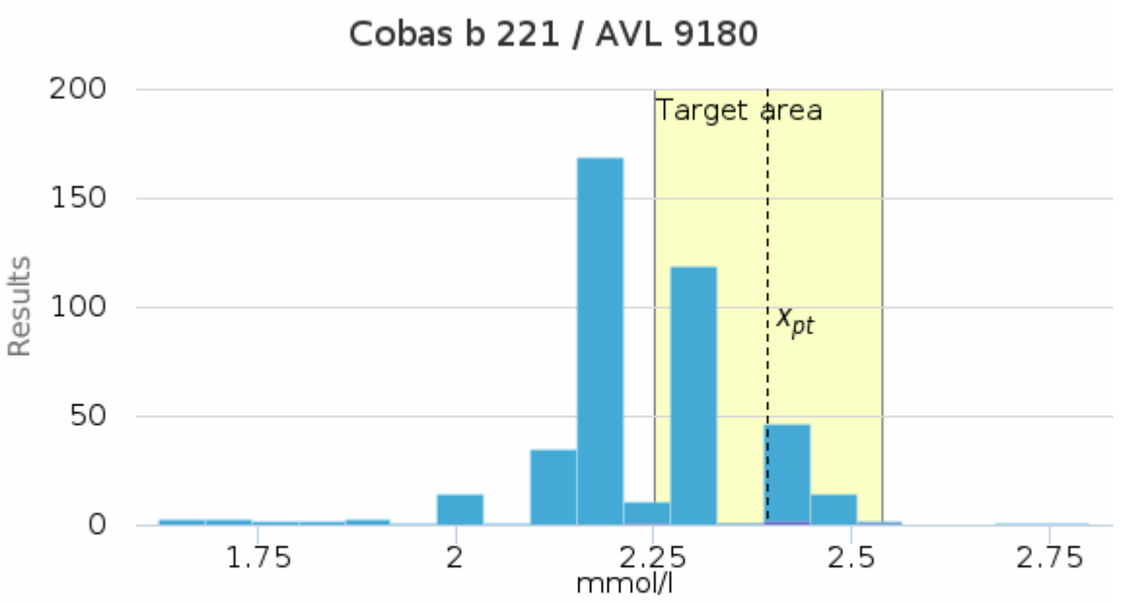
Sample S003 | Glucose, mmol/l

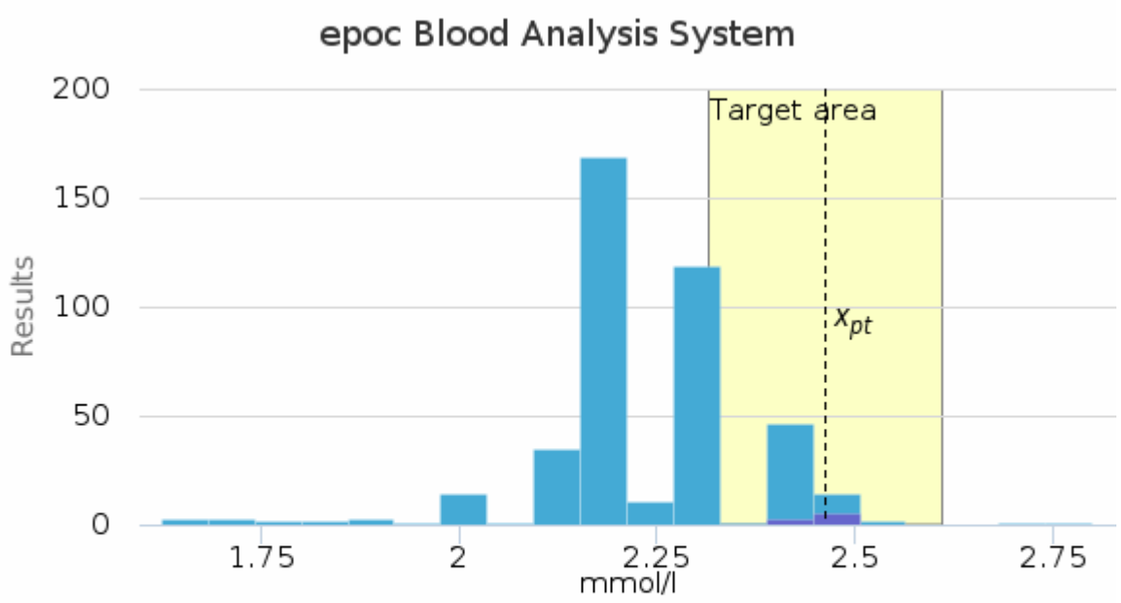
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	2.3	2.3	0.1	5.4	<0.1	2.0	2.5	1	131
ABL 90 FLEX + FLEX PLUS	2.2	2.2	<0.1	2.5	<0.1	2.1	2.4	5	190
Cobas b 221 / AVL 9180	2.4	2.4	0.1	4.9	<0.1	2.2	2.5	-	4
epoc Blood Analysis System	2.5	2.5	<0.1	2.1	<0.1	2.4	2.5	-	8
Gem Premier 3000-3500	1.8	1.7	<0.1	3.6	<0.1	1.7	1.8	-	9
Gem Premier 4000	2.1	2.0	0.1	5.8	<0.1	2.0	2.2	-	4
Gem Premier 5000	1.9	2.0	0.1	6.7	<0.1	1.6	2.1	-	10
i-STAT	2.3	2.3	<0.1	2.5	<0.1	2.2	2.4	1	11
i-STAT Alinity	2.4	2.4	<0.1	<0.1	<0.1	2.4	2.4	-	6
RAPIDPoint 400/500 series	2.2	2.2	<0.1	3.2	<0.1	2.1	2.4	-	55
All	**2.2**	**2.2**	**0.1**	**5.2**	**<0.1**	**1.8**	**2.5**	**8**	**428**

Sample S003 | Glucose, mmol/l| histogram summaries in LabScala

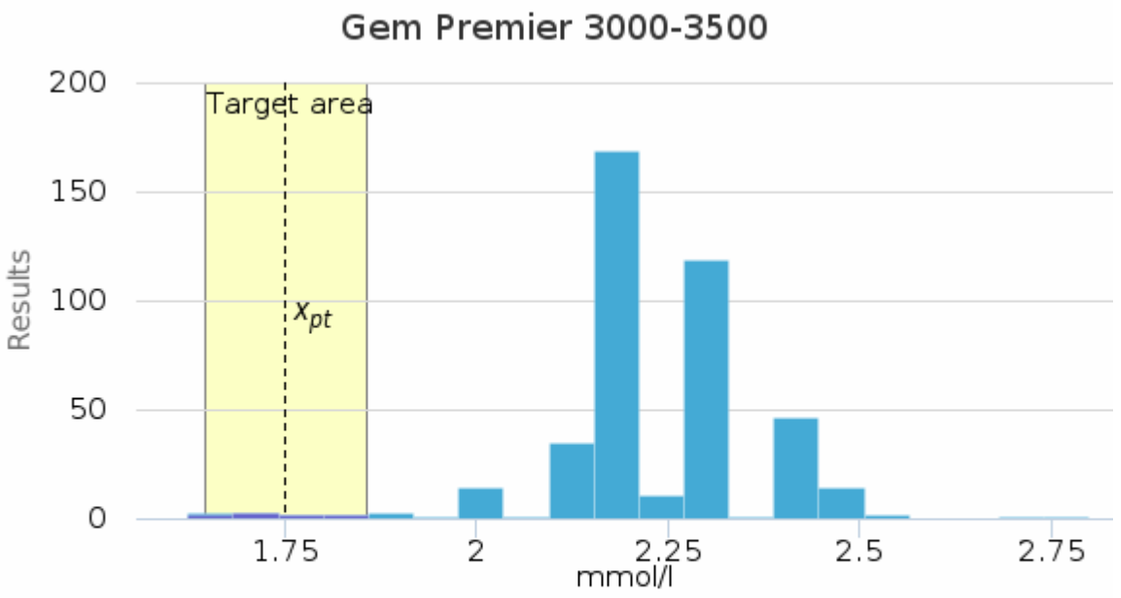


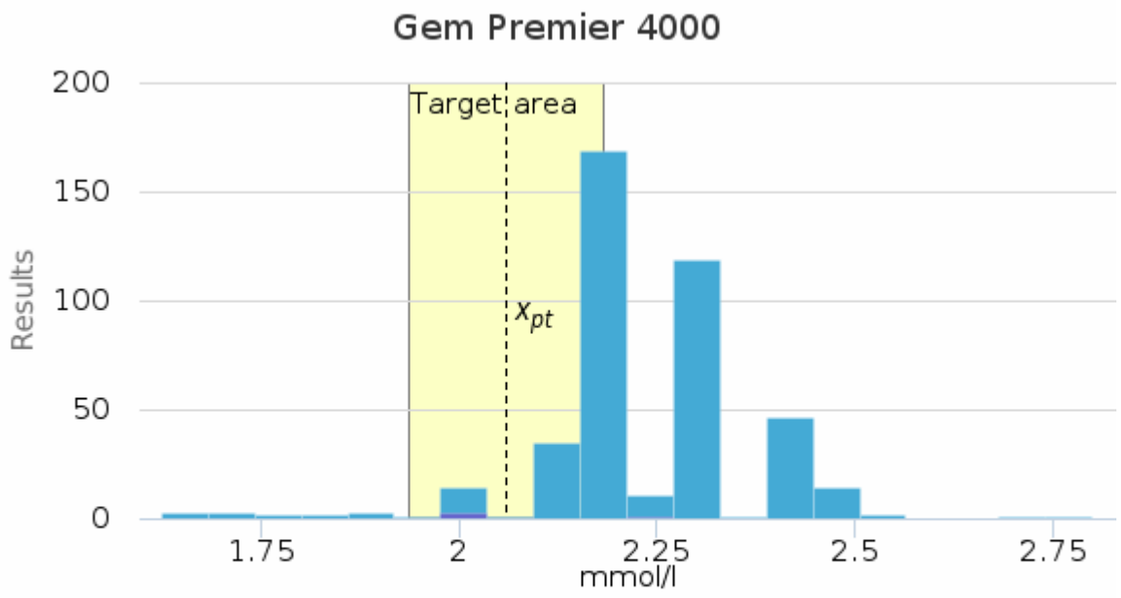






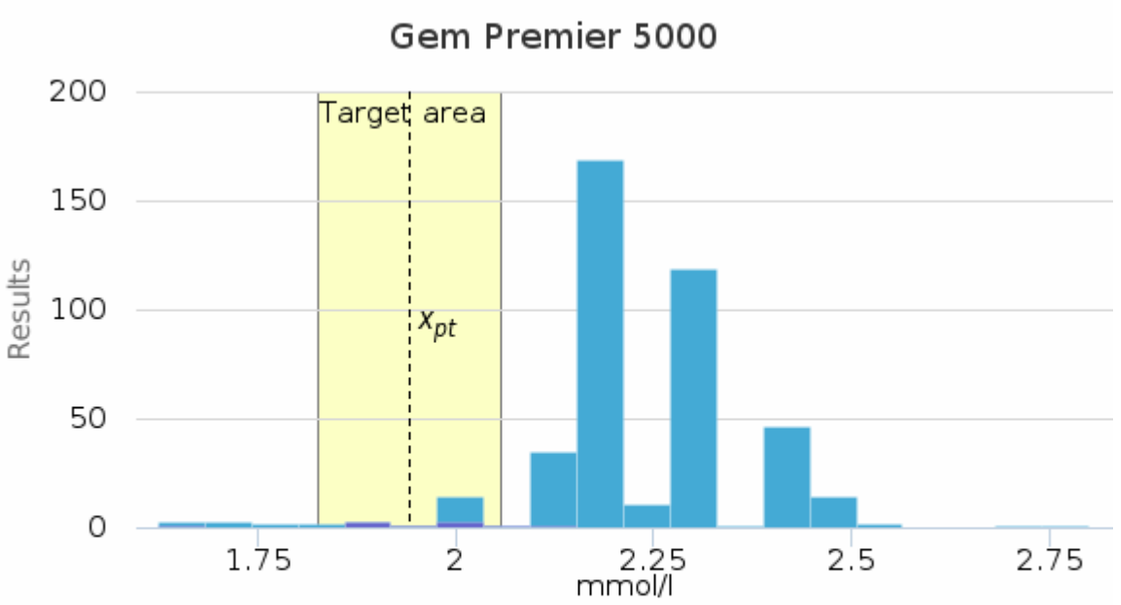
Acid-base status and electrolytes, February, 1-2023

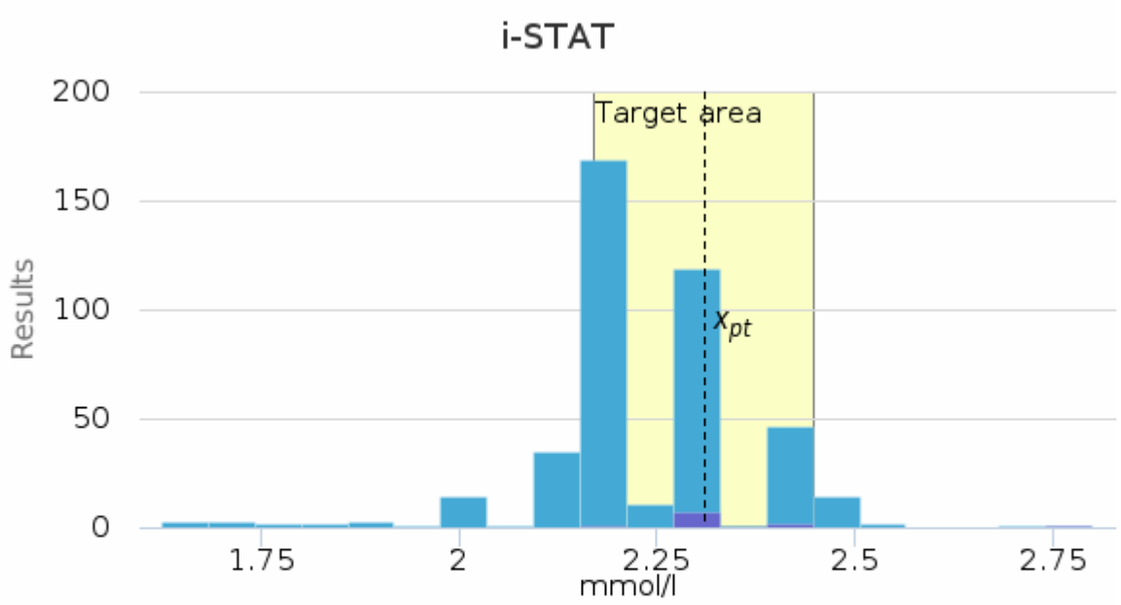




All method groups
Gem Premier 3000-3500 (x_{pt}: 1.8 | Target area: 1.6-1.9 | Target: ±6%)

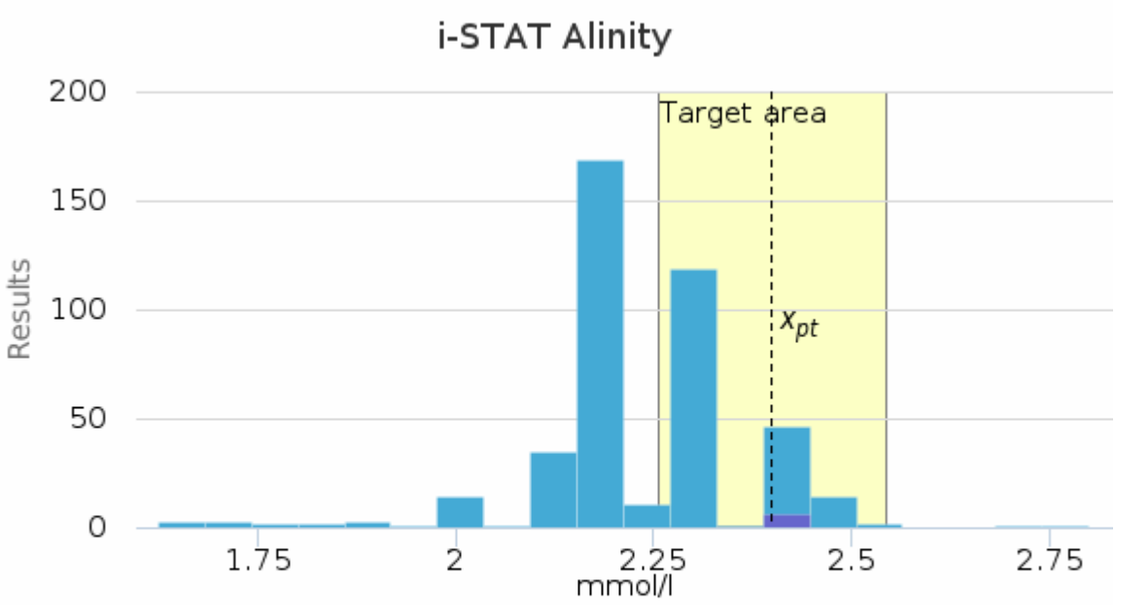
All method groups
Gem Premier 4000 (x_{pt}: 2.1 | Target area: 1.9-2.2 | Target: ±6%)

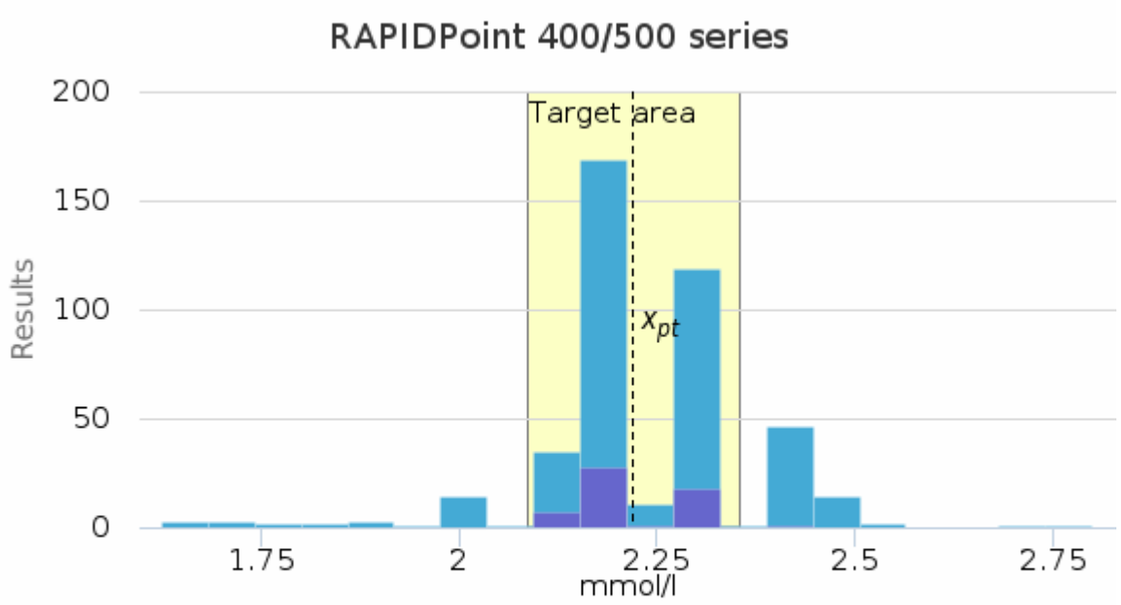




All method groups
Gem Premier 5000 (x_{pt}: 1.9 | Target area: 1.8-2.1 | Target: ±6%)

All method groups
i-STAT (x_{pt}: 2.3 | Target area: 2.2-2.4 | Target: ±6%)





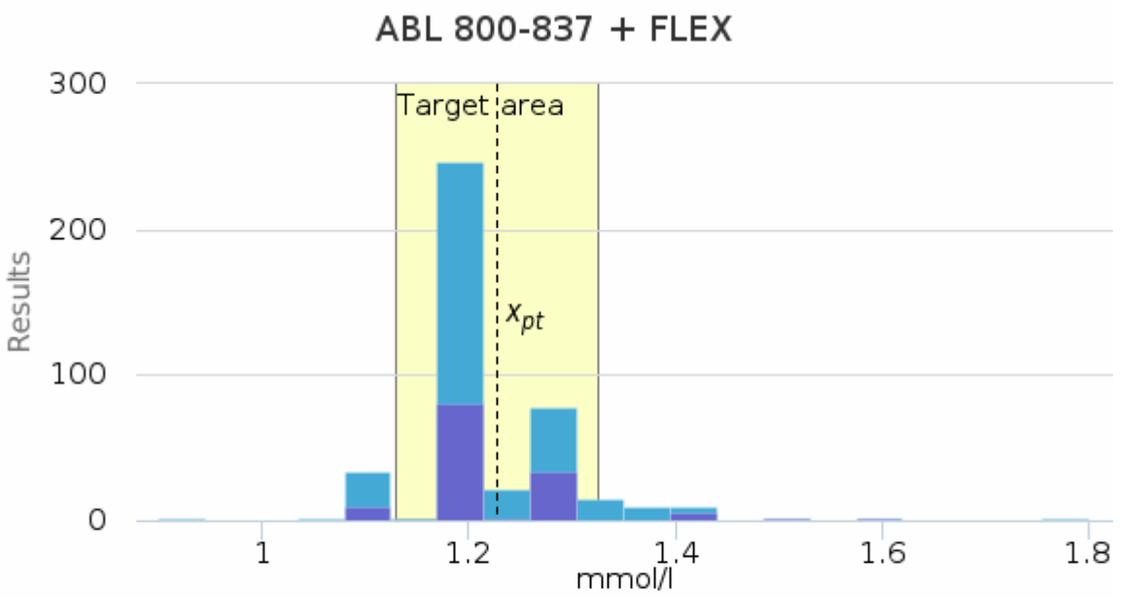
All method groups
i-STAT Alinity (x_{pt}: 2.4 | Target area: 2.3-2.5 | Target: ±6%)

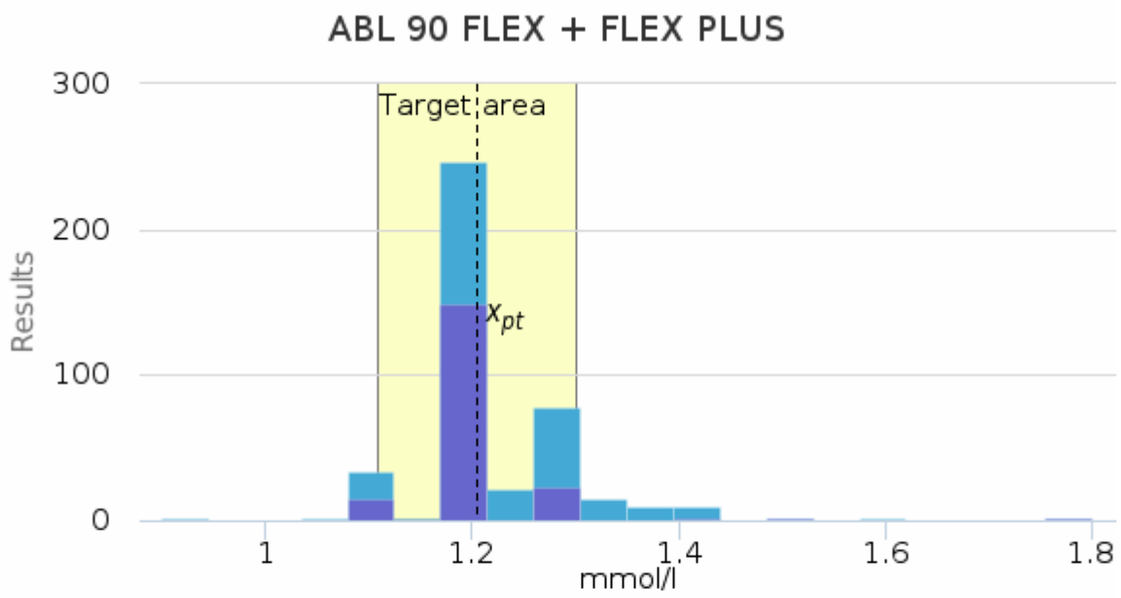
All method groups
RAPIDPoint 400/500 series (x_{pt}: 2.2 | Target area: 2.1-2.4 | Target: ±6%)

Sample S003 | Lactate, mmol/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	1.2	1.2	<0.1	5.4	<0.1	1.1	1.4	2	133
ABL 90 FLEX + FLEX PLUS	1.2	1.2	<0.1	3.9	<0.1	1.1	1.4	2	190
Cobas b 221 / AVL 9180	1.3	1.4	<0.1	3.6	<0.1	1.3	1.4	-	4
epoc Blood Analysis System	1.3	1.3	<0.1	2.2	<0.1	1.3	1.4	-	8
Gem Premier 3000-3500	1.1	1.1	<0.1	6.2	<0.1	1.1	1.3	-	9
Gem Premier 4000	1.3	1.3	<0.1	<0.1	<0.1	1.3	1.3	-	4
Gem Premier 5000	1.3	1.3	<0.1	3.5	<0.1	1.2	1.3	1	10
i-STAT	1.2	1.2	<0.1	1.6	<0.1	1.2	1.3	-	9
i-STAT Alinity	-	-	-	-	-	1.2	1.2	-	1
RAPIDPoint 400/500 series	1.3	1.3	<0.1	6.1	<0.1	1.1	1.4	-	54
All	**1.2**	**1.2**	**<0.1**	**5.4**	**<0.1**	**1.1**	**1.4**	**5**	**422**

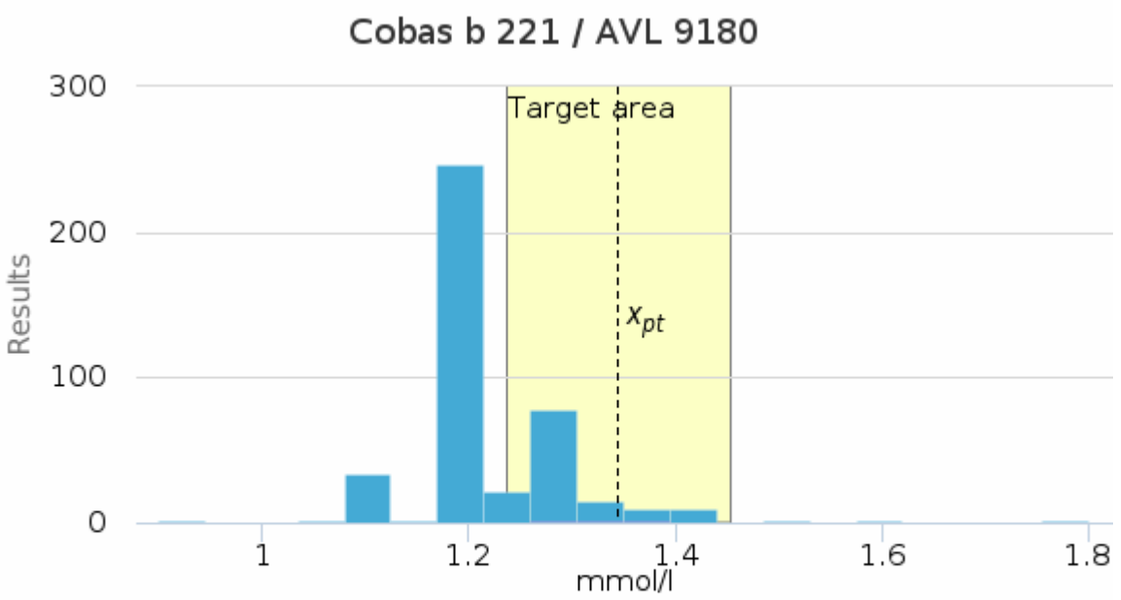
Sample S003 | Lactate, mmol/l| histogram summaries in LabScala

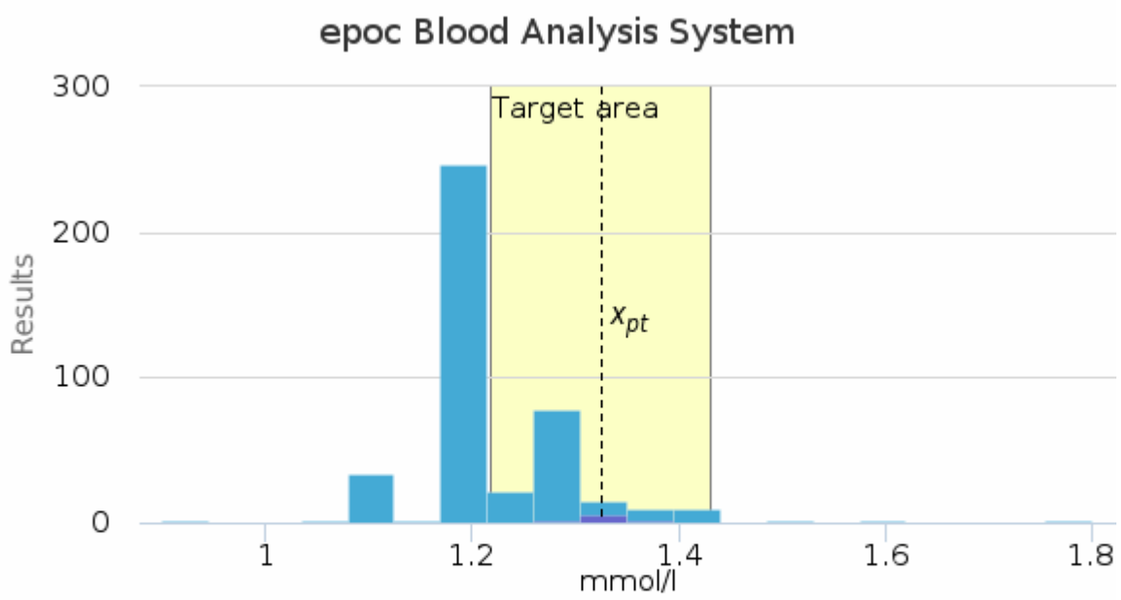




All method groups — ABL 800-837 + FLEX (x_{pt}: 1.2 | Target area: 1.1-1.3 | Target: ±8%)

All method groups — ABL 90 FLEX + FLEX PLUS (x_{pt}: 1.2 | Target area: 1.1-1.3 | Target: ±8%)

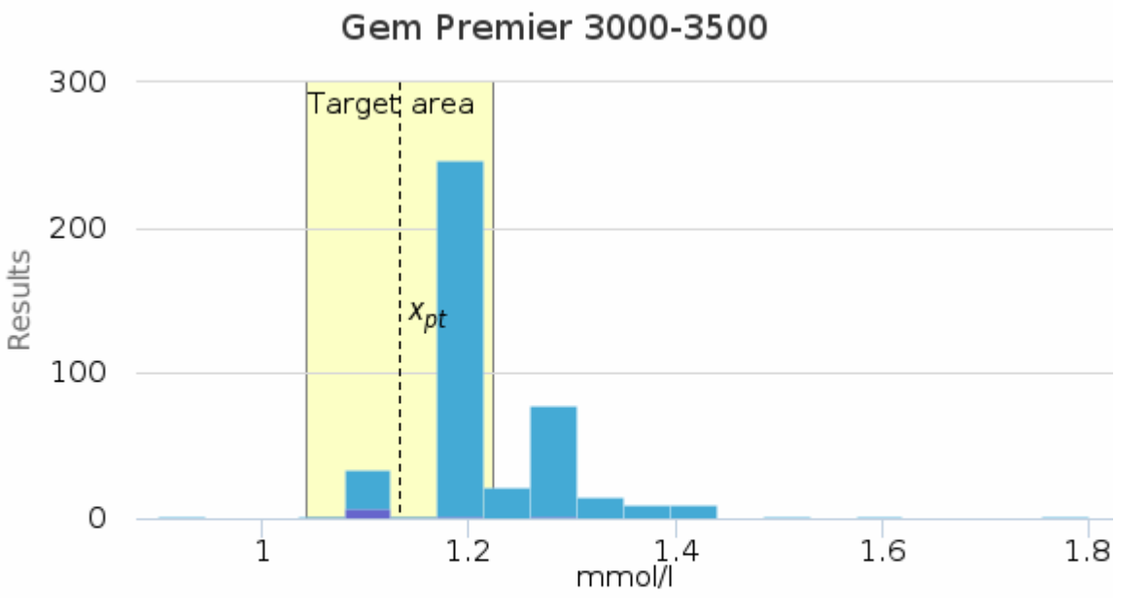


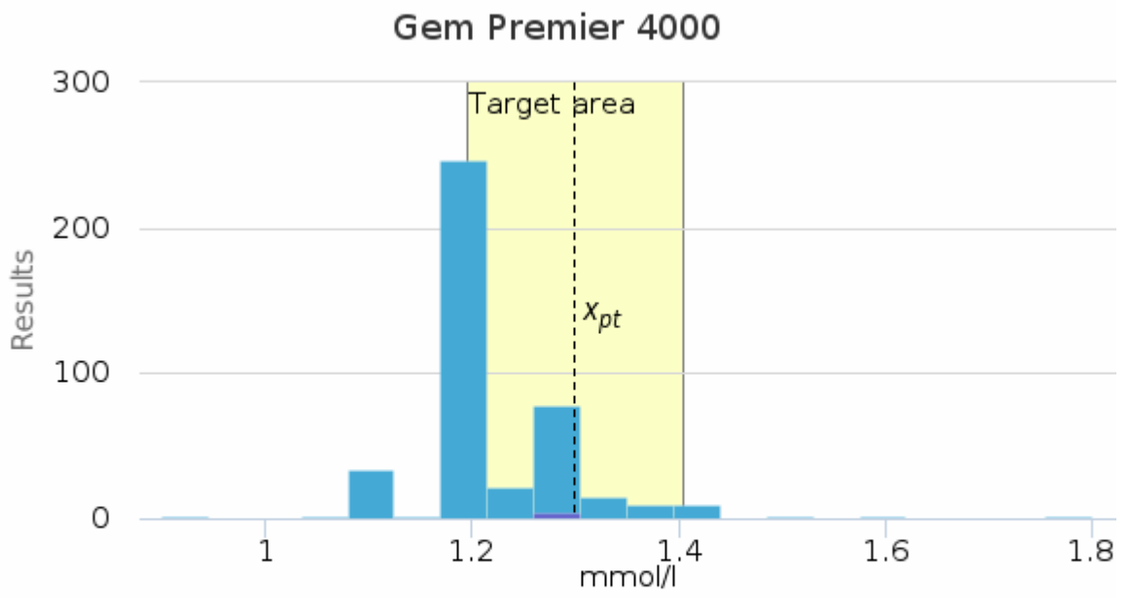


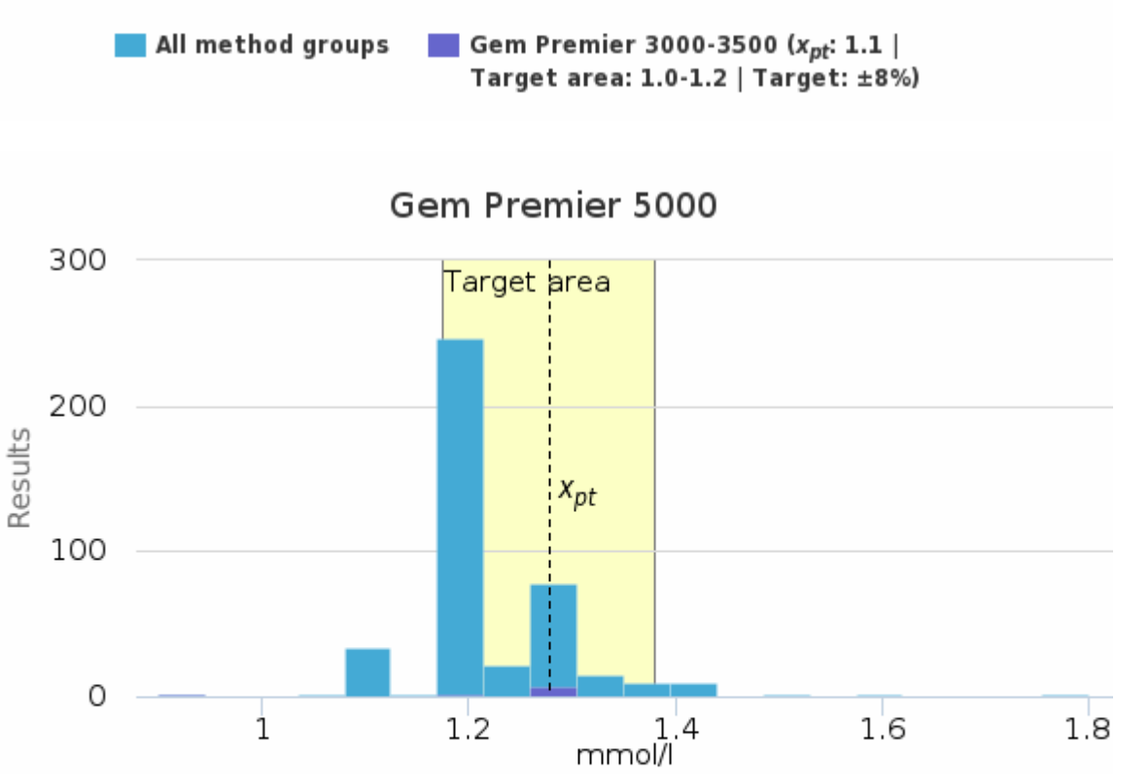
All method groups — Cobas b 221 / AVL 9180 (x_{pt}: 1.3 | Target area: 1.2-1.5 | Target: ±8%)

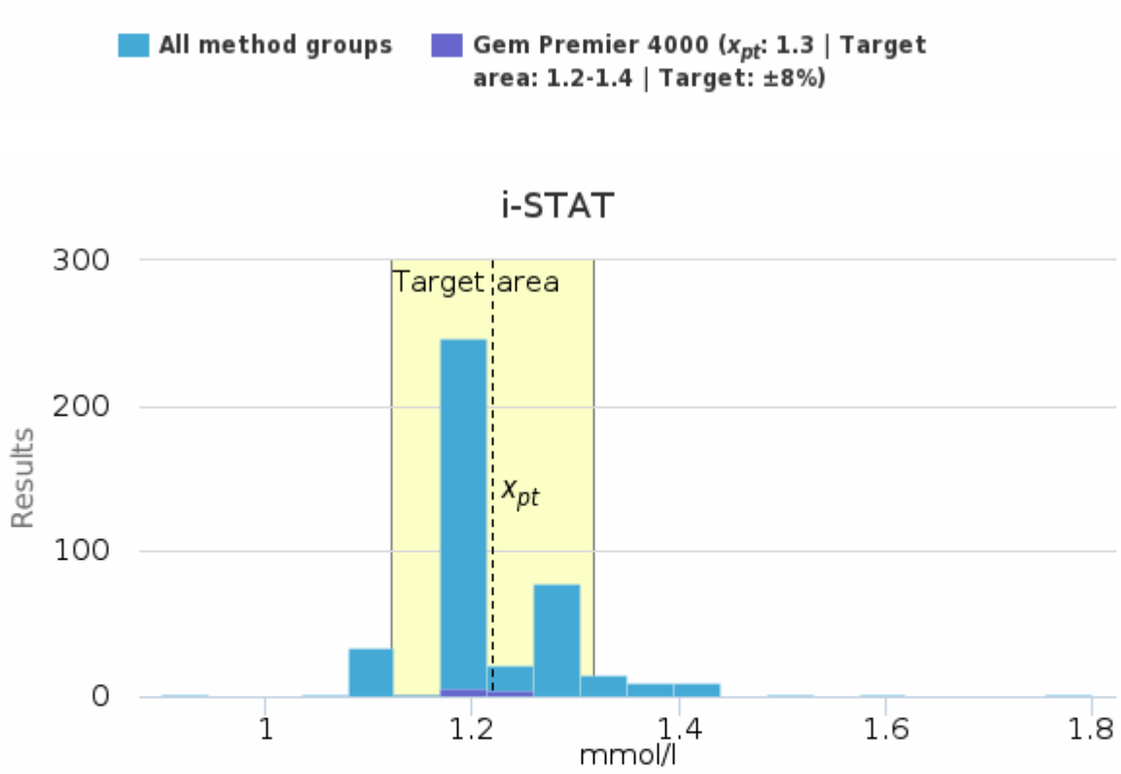
All method groups — epoc Blood Analysis System (x_{pt}: 1.3 | Target area: 1.2-1.4 | Target: ±8%)

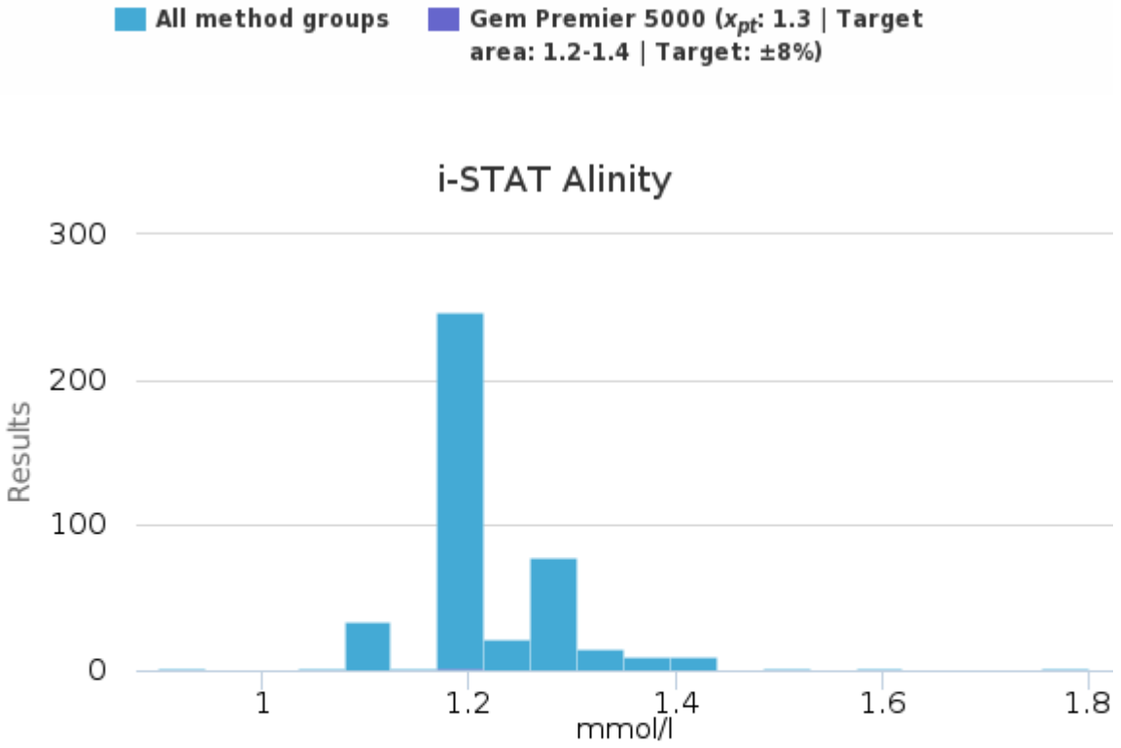
Acid-base status and electrolytes, February, 1-2023

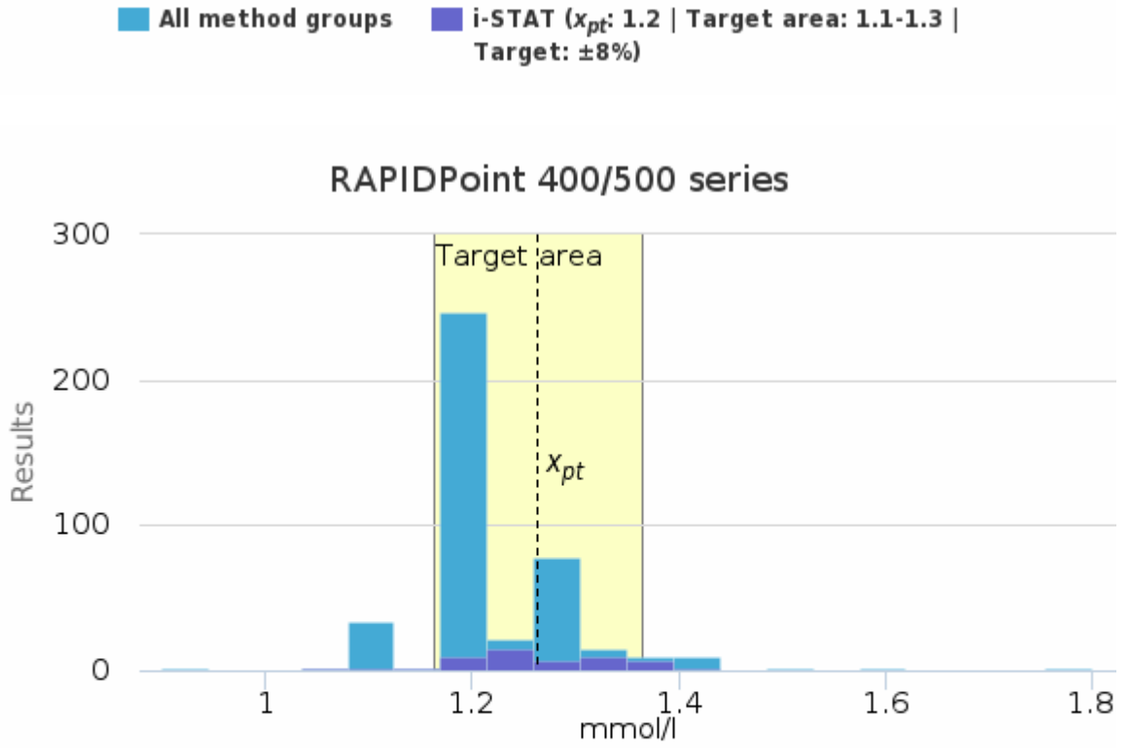








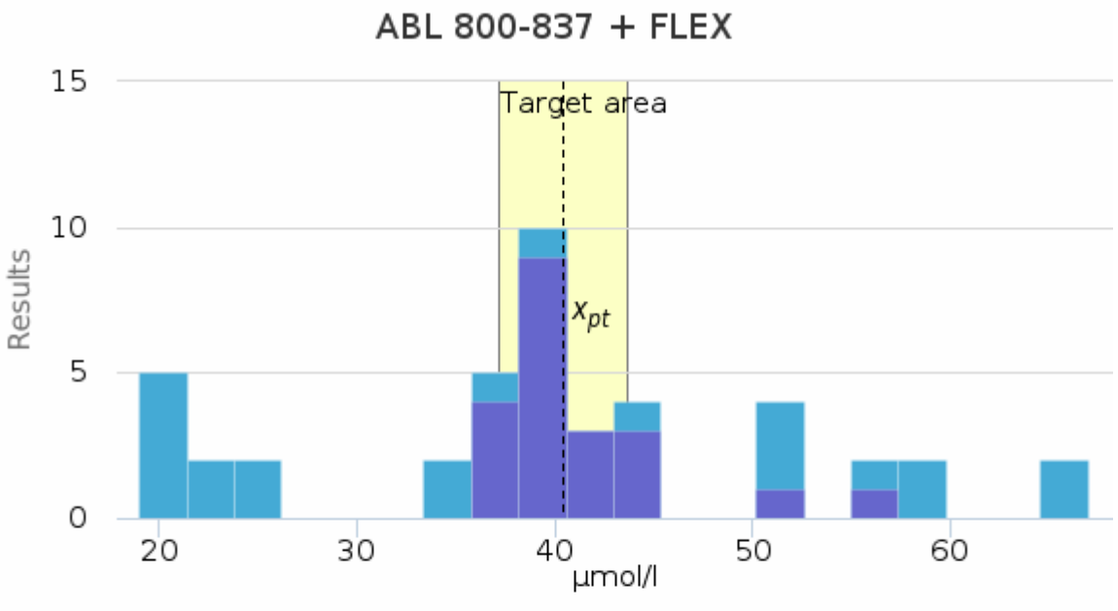


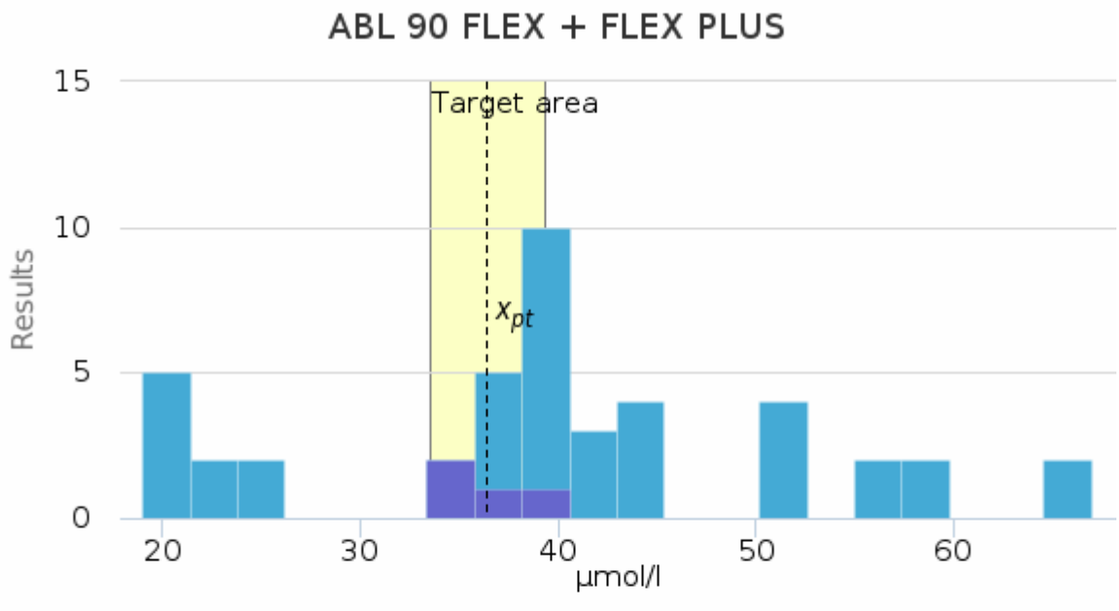


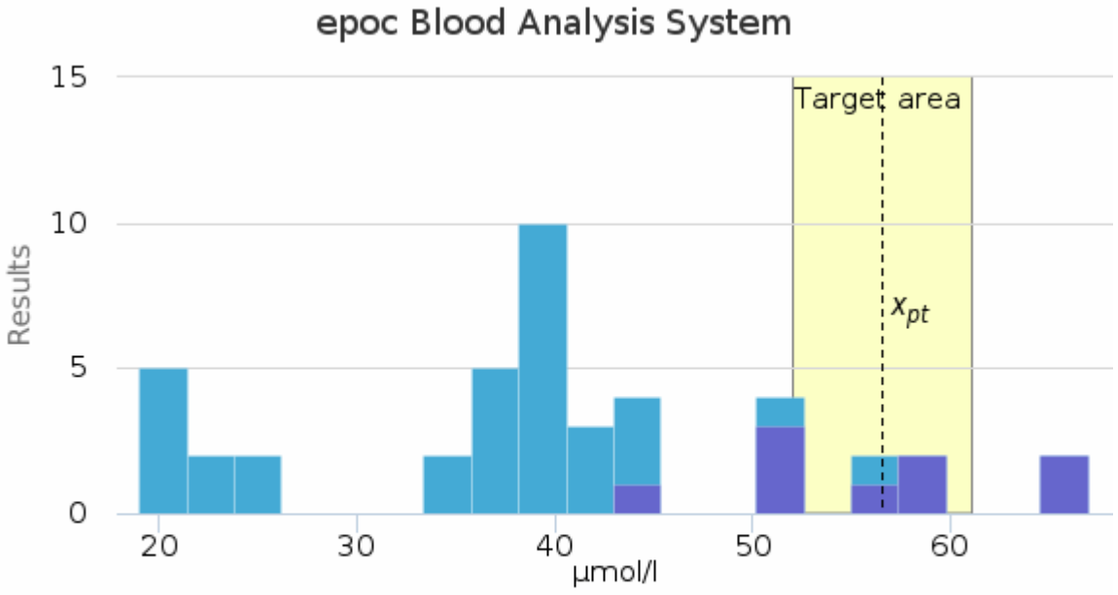
Sample S003 | Crea, µmol/l

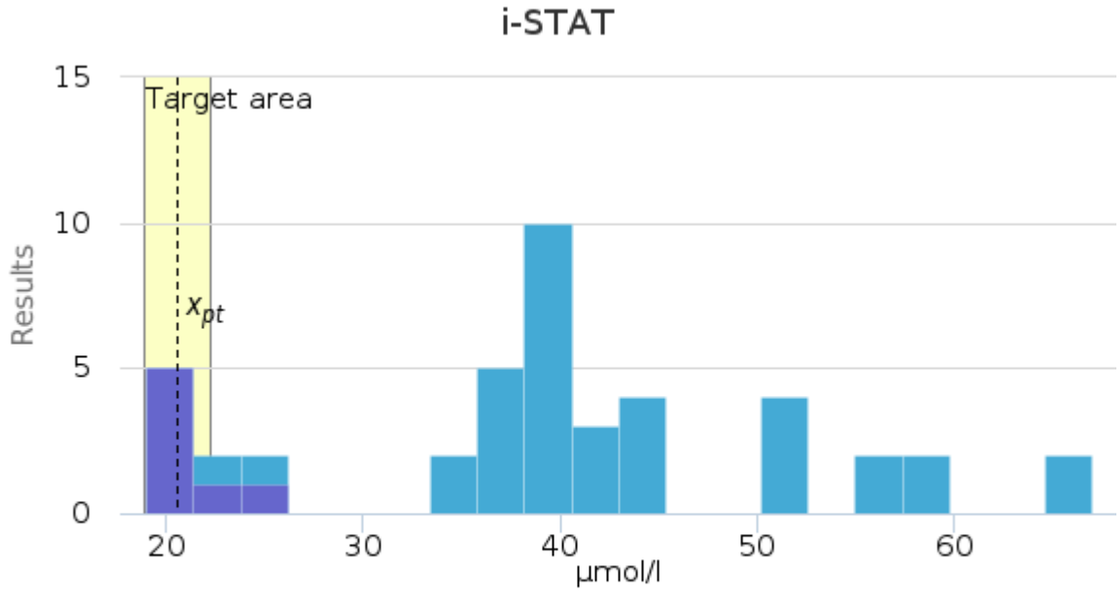
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 800-837 + FLEX	40	39	3	7.9	<1	38	51	1	21
ABL 90 FLEX + FLEX PLUS	36	36	2	4.9	<1	35	39	-	4
epoc Blood Analysis System	57	57	7	12.6	2	45	67	-	9
i-STAT	21	20	2	9.2	<1	19	24	-	7
i-STAT Alinity	24	24	<1	3.0	<1	23	24	-	2
All	**40**	**39**	**13**	**31.4**	**2**	**19**	**67**	**-**	**43**

Sample S003 | Crea, µmol/l| histogram summaries in LabScala

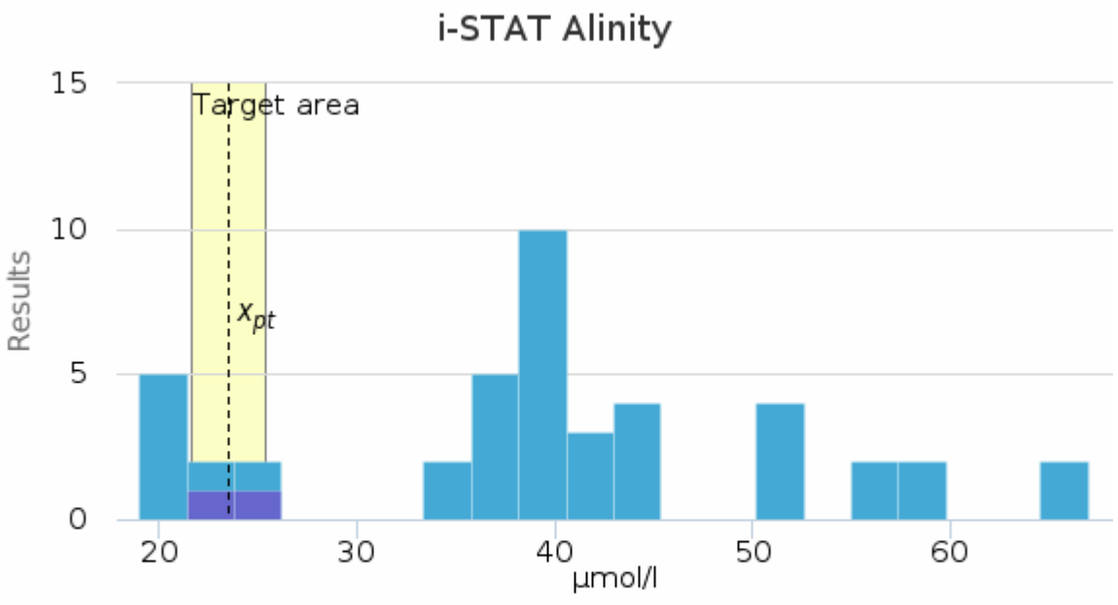








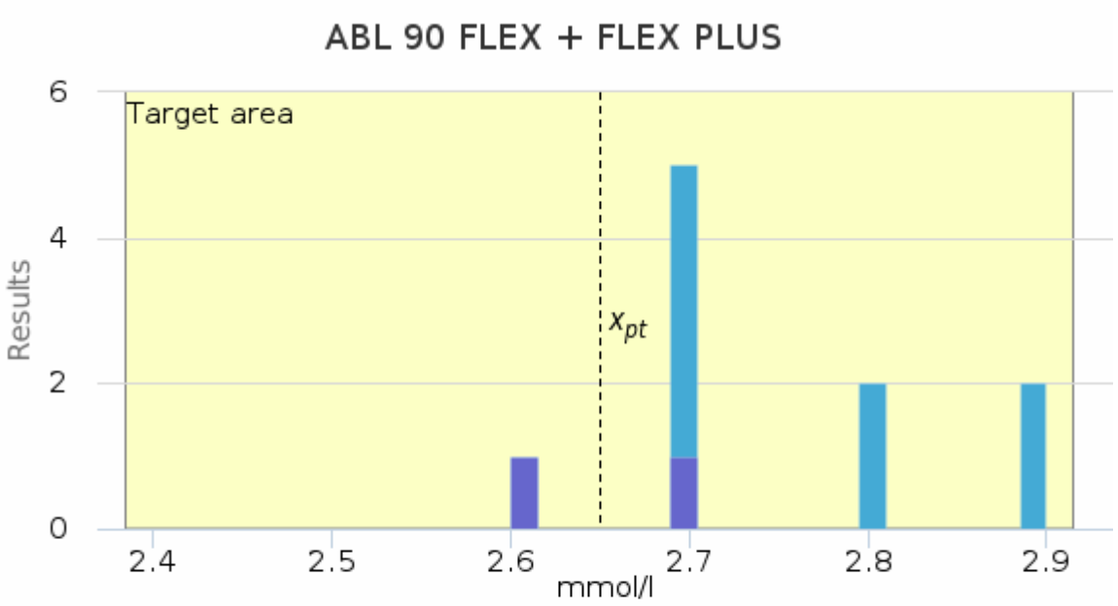
Acid-base status and electrolytes, February, 1-2023

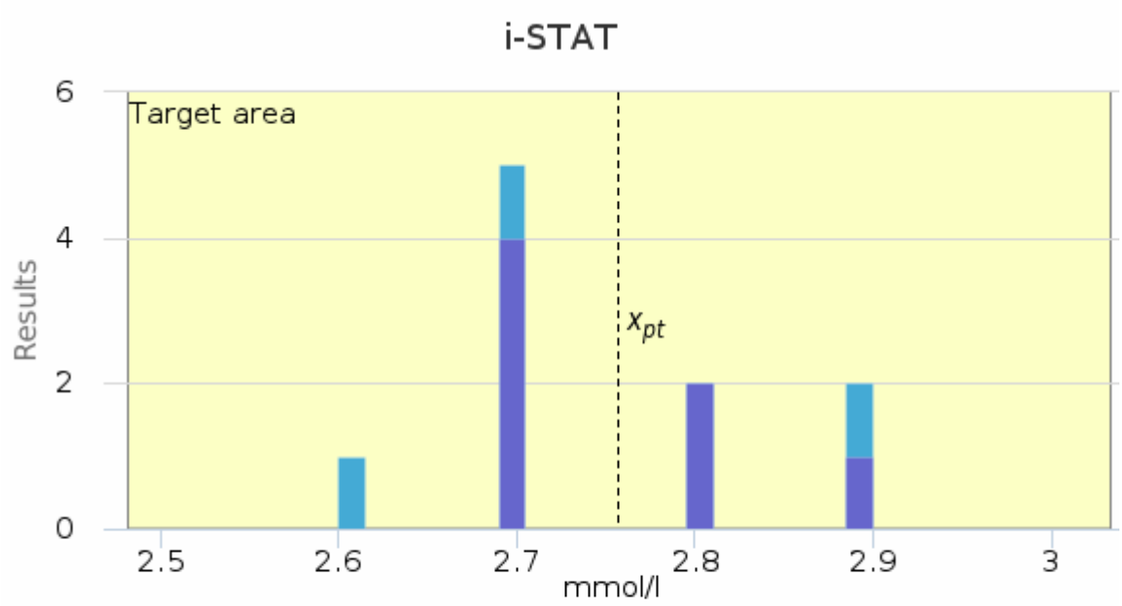


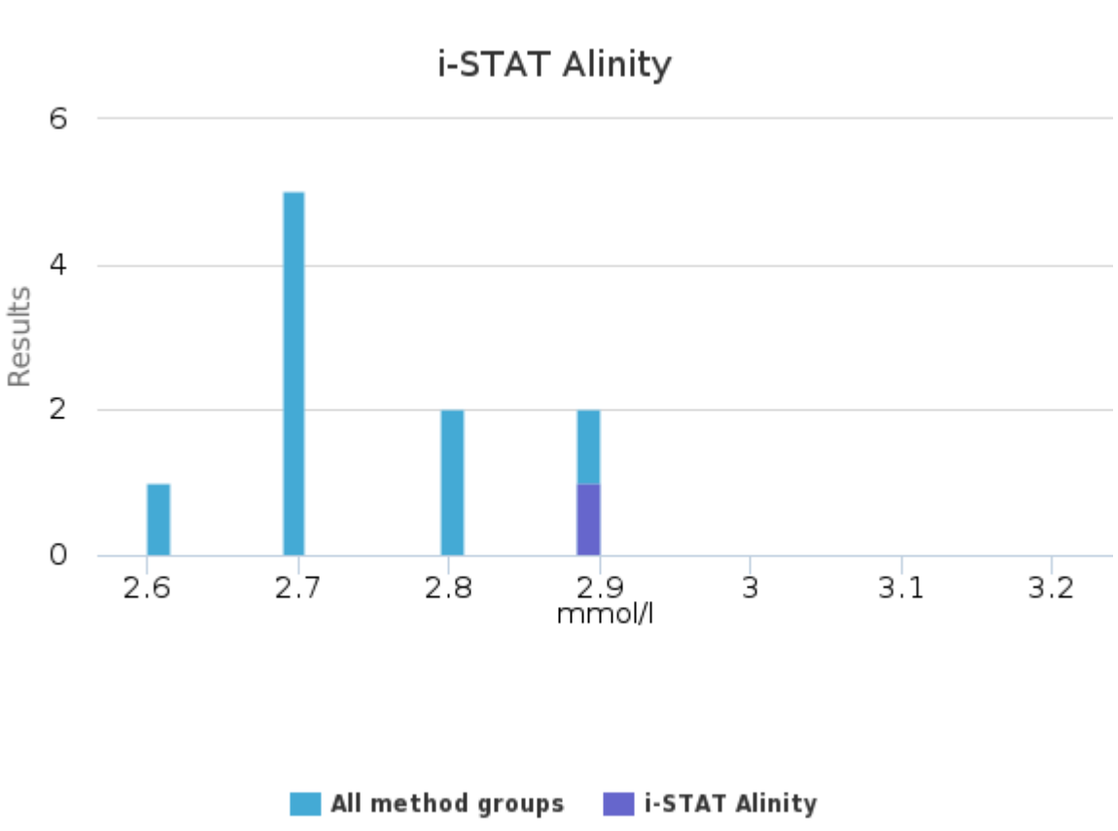
Sample S003 | Urea, mmol/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 90 FLEX + FLEX PLUS	2.7	2.7	<0.1	2.7	<0.1	2.6	2.7	-	2
i-STAT	2.8	2.7	<0.1	2.9	<0.1	2.7	2.9	-	7
i-STAT Alinity	-	-	-	-	-	2.9	2.9	-	1
All	**2.8**	**2.7**	**<0.1**	**3.5**	**<0.1**	**2.6**	**2.9**	**-**	**10**

Sample S003 | Urea, mmol/l| histogram summaries in LabScala



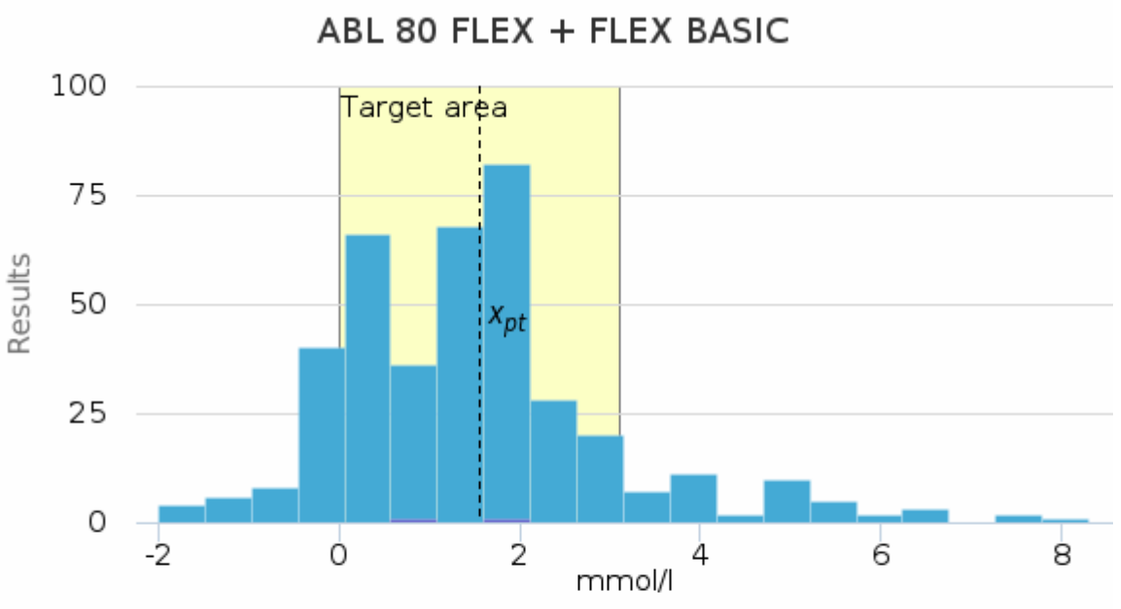


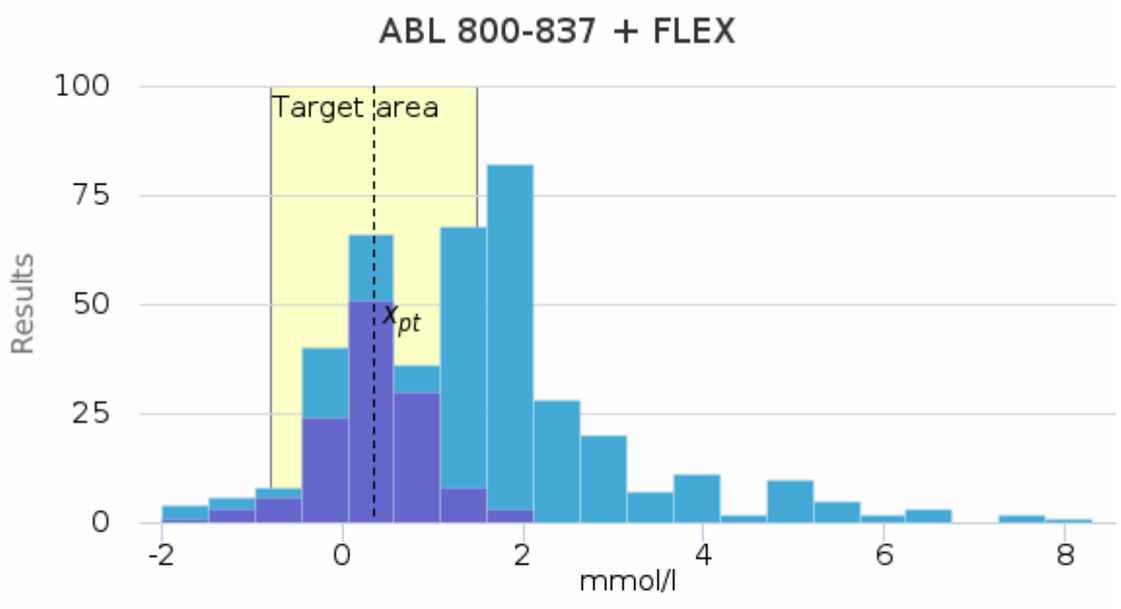


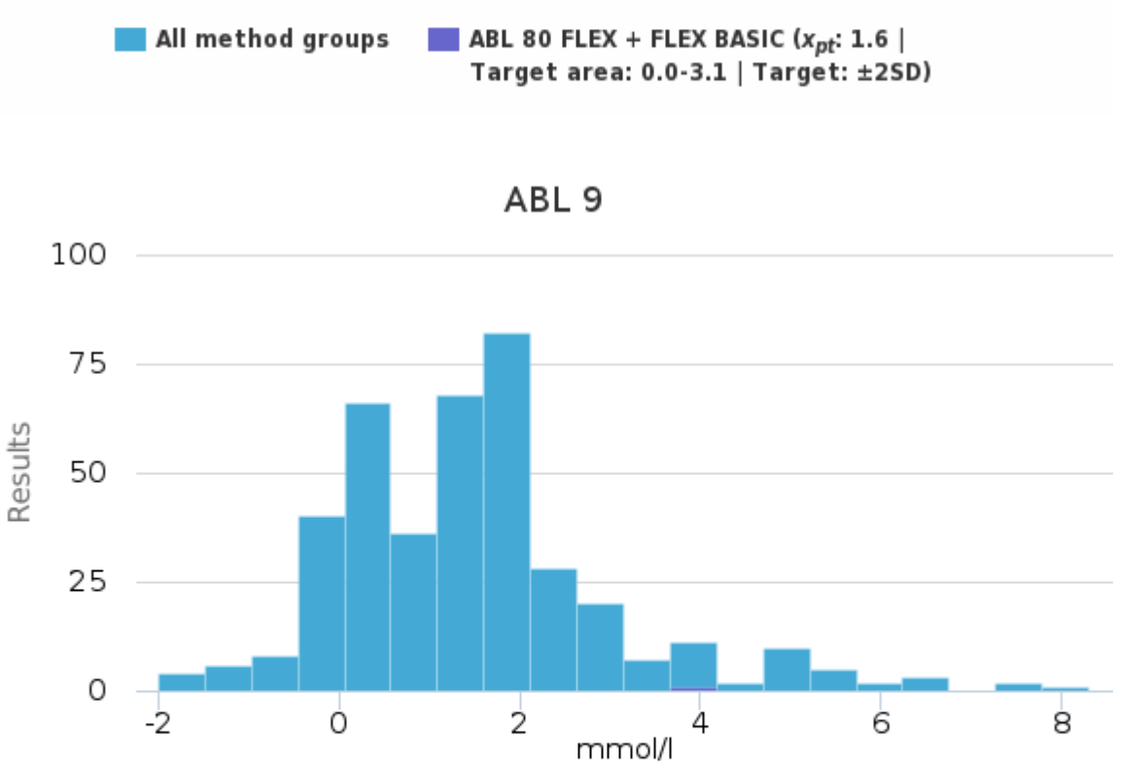
Sample S003 | Base excess, mmol/l

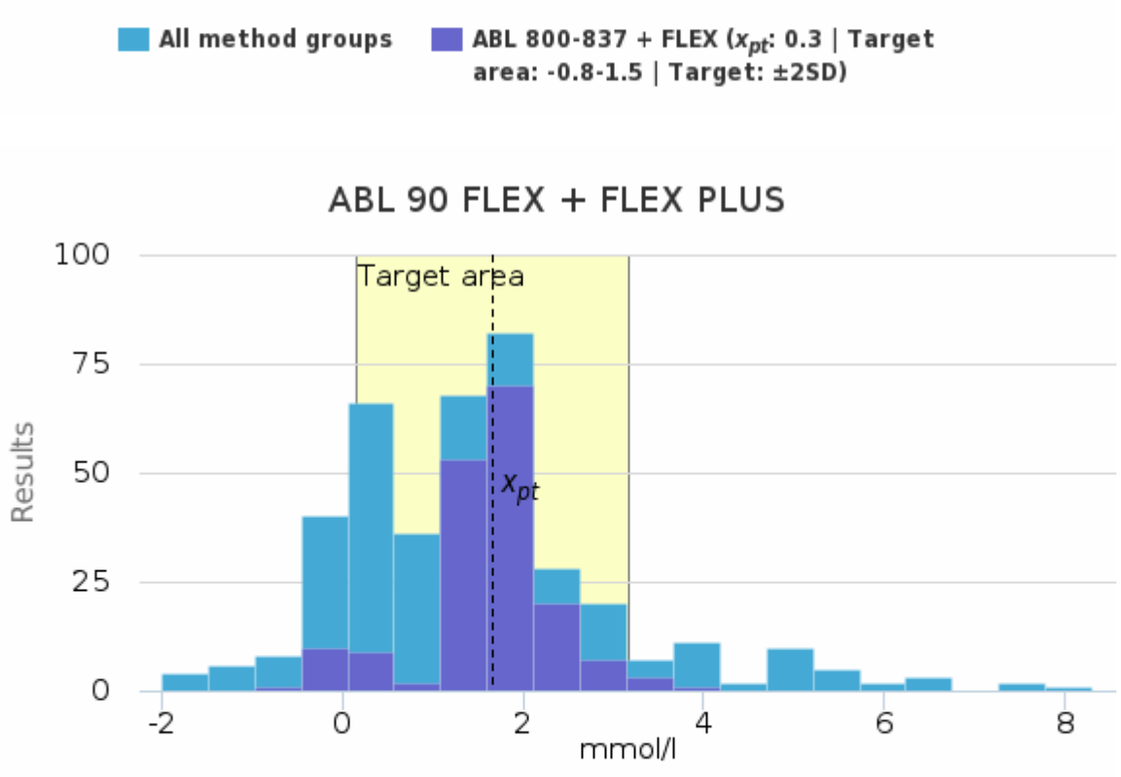
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	1.6	1.6	0.8	50.2	0.6	1.0	2.1	-	2
ABL 800-837 + FLEX	0.3	0.3	0.6	164.4	<0.1	-1.4	2.0	1	126
ABL 9	-	-	-	-	-	4.0	4.0	-	1
ABL 90 FLEX + FLEX PLUS	1.7	1.7	0.8	45.2	<0.1	-0.5	3.7	-	176
Cobas b 221 / AVL 9180	0.6	0.3	1.0	175.5	0.4	-0.3	2.0	-	7
epoc Blood Analysis System	-1.4	-1.6	0.6	39.3	0.2	-2.0	-0.4	-	6
Gem Premier 3000-3500	5.3	5.3	0.6	12.1	0.5	4.8	5.7	-	2
Gem Premier 4000	7.5	7.5	1.2	16.1	0.9	6.6	8.3	-	2
Gem Premier 5000	6.3	6.1	0.8	12.4	0.3	5.3	7.3	-	8
i-STAT	4.3	4.0	0.9	21.3	0.2	3.0	6.0	-	16
i-STAT Alinity	4.8	5.0	0.4	8.4	0.2	4.0	5.0	-	6
RAPIDLab 1200 series (RL1240-RL1265)	3.7	3.7	0.8	21.3	0.6	3.1	4.2	-	2
RAPIDPoint 400/500 series	1.9	2.0	1.2	66.4	0.2	-1.3	4.5	-	47
All	**1.4**	**1.5**	**1.4**	**98.7**	**<0.1**	**-2.0**	**6.0**	**6**	**401**

Sample S003 | Base excess, mmol/l| histogram summaries in LabScala

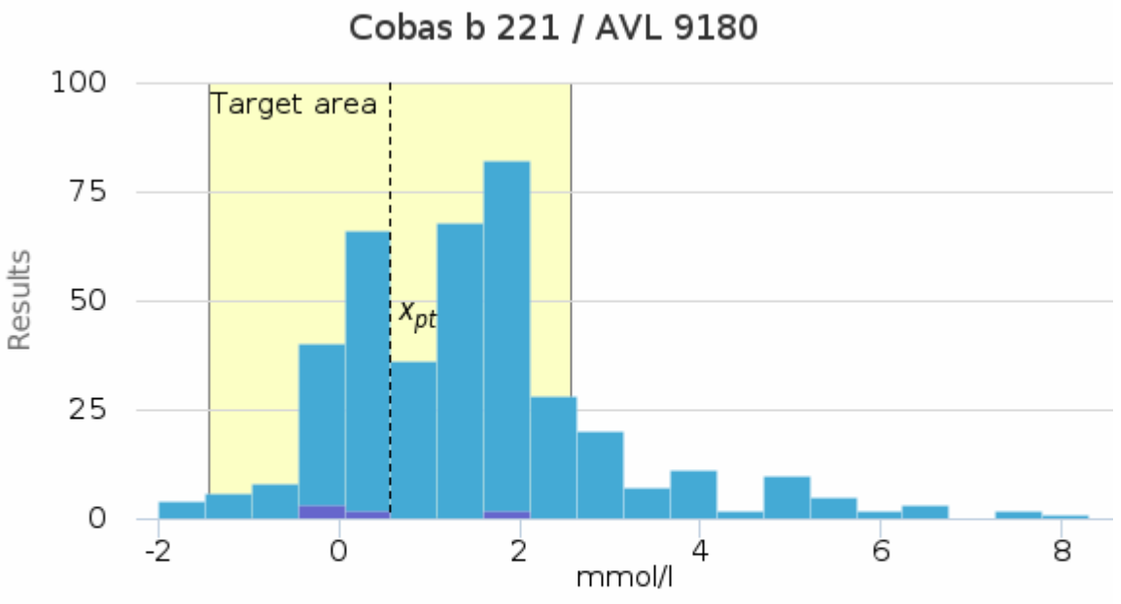


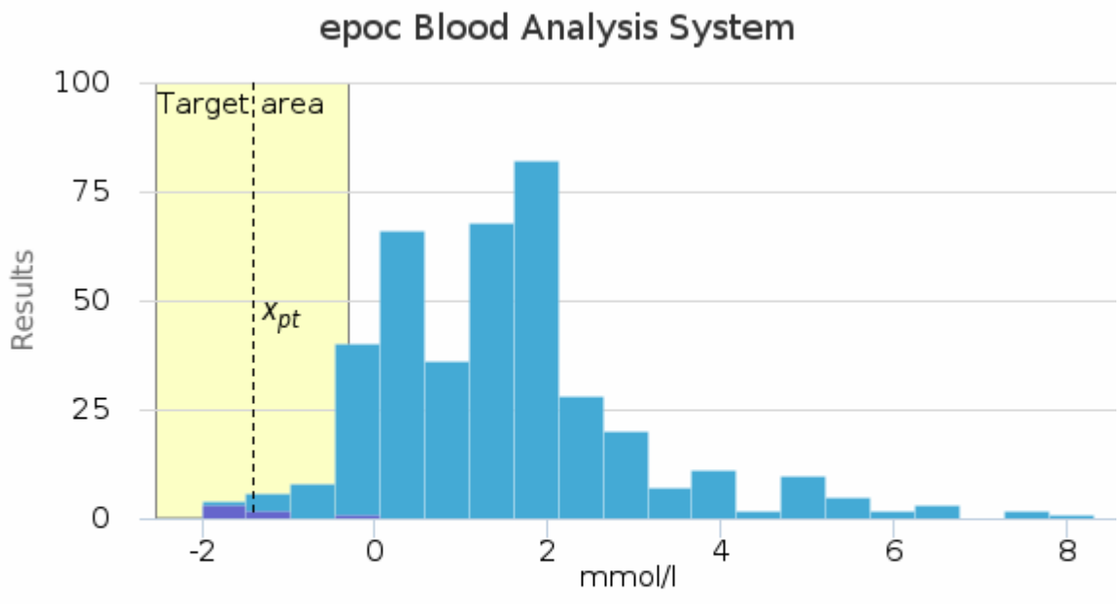


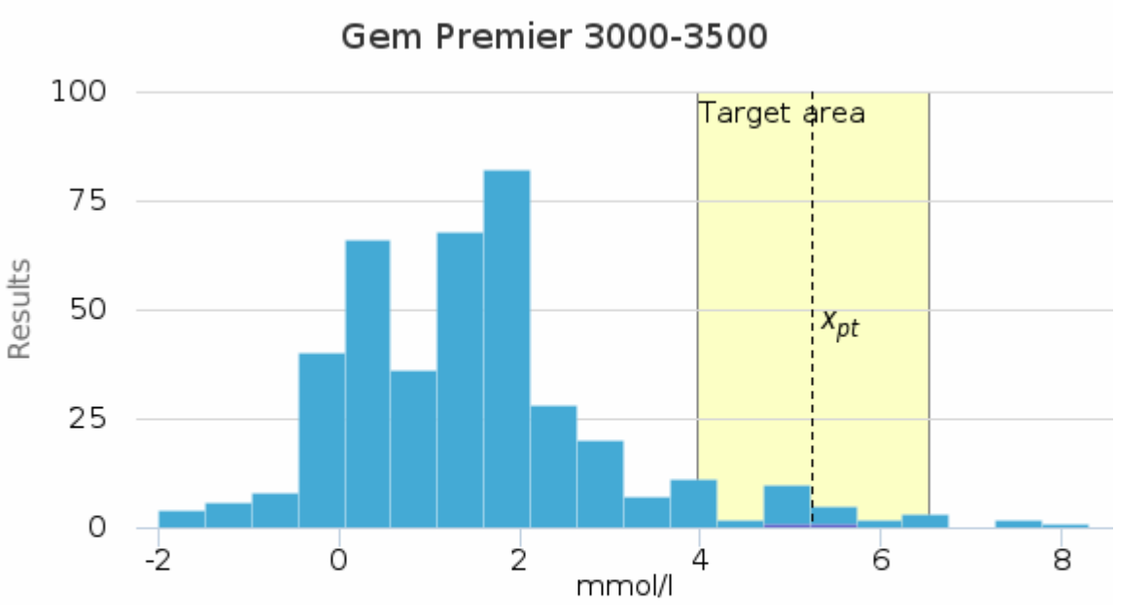


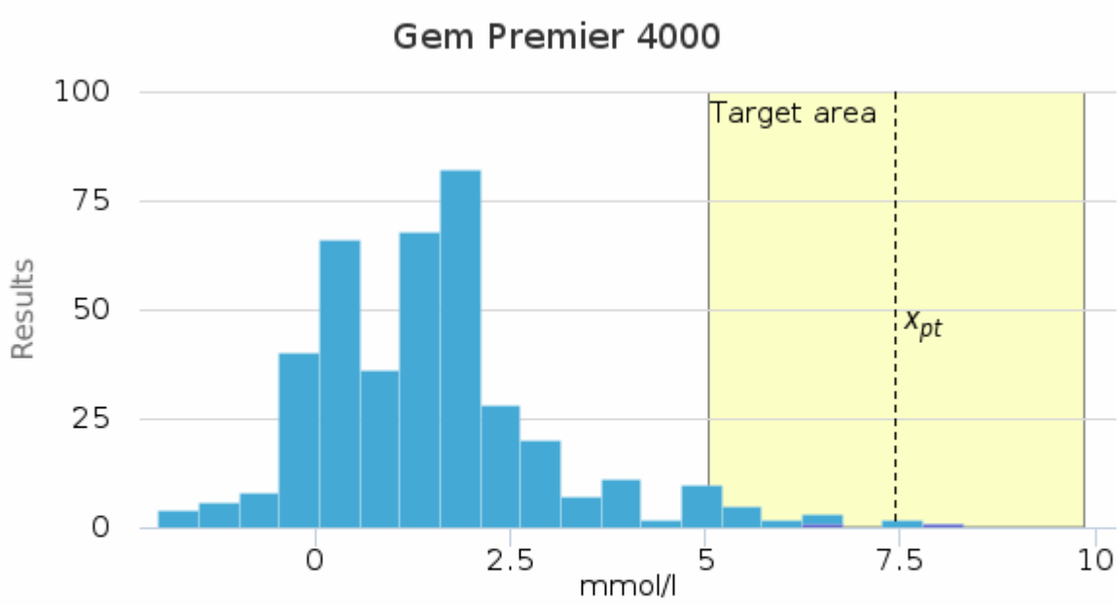


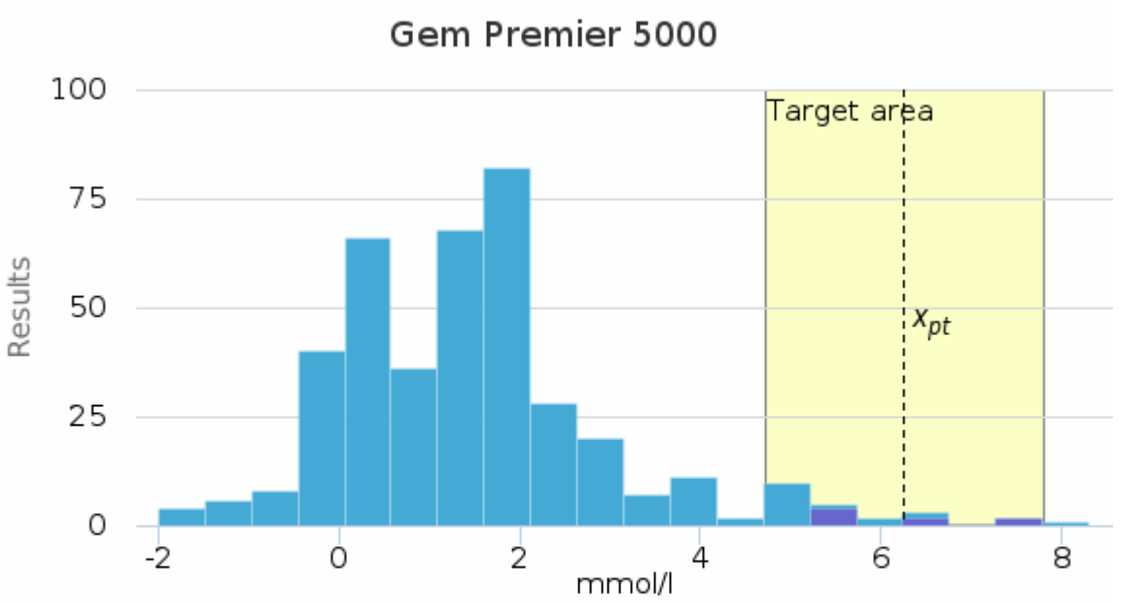
Acid-base status and electrolytes, February, 1-2023

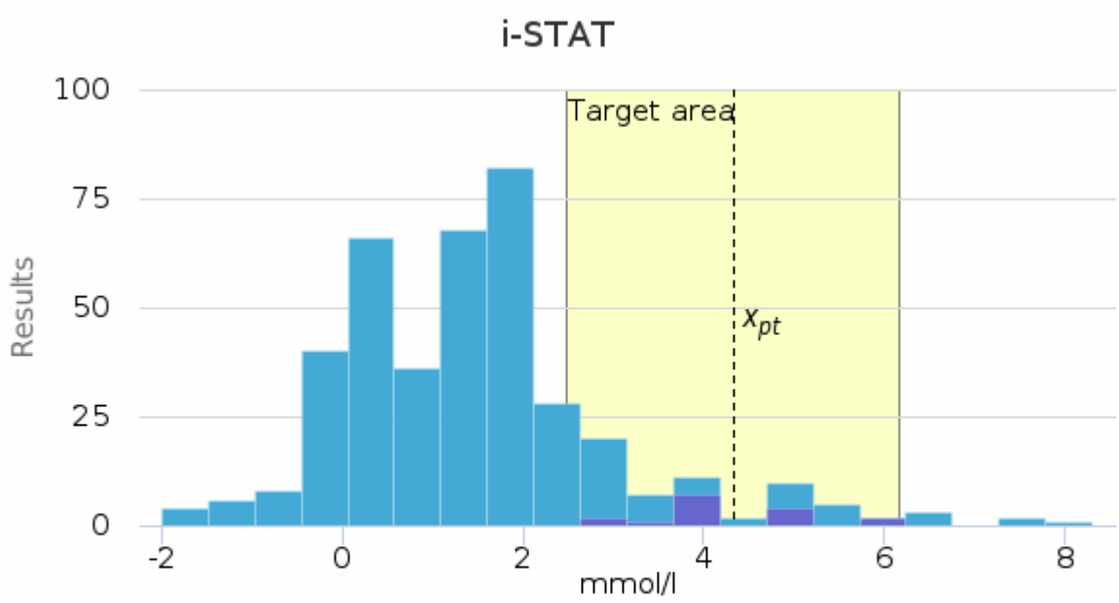




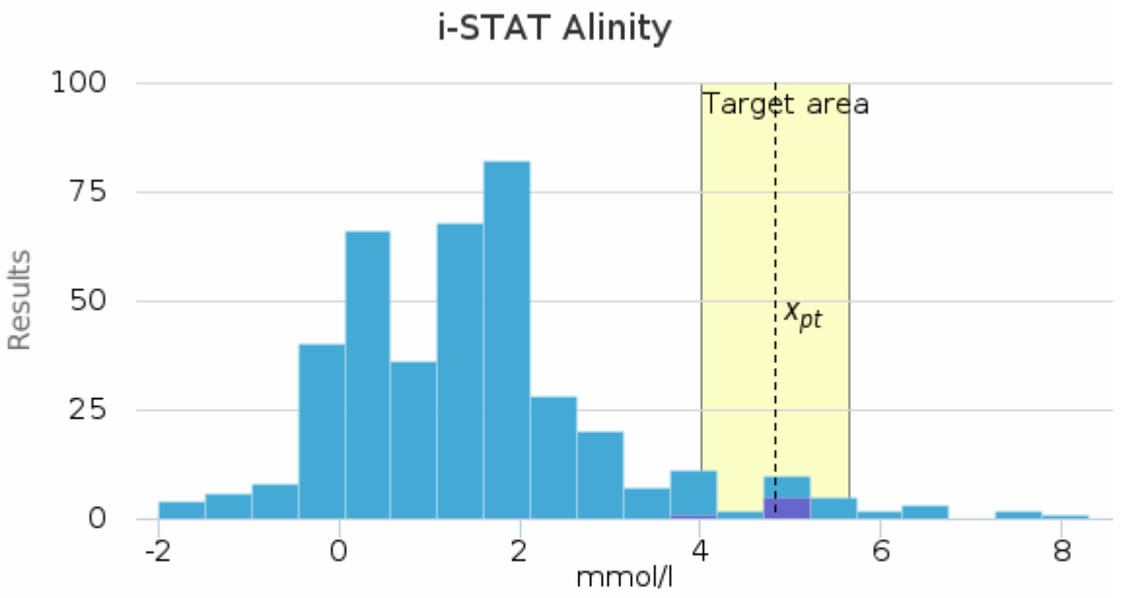


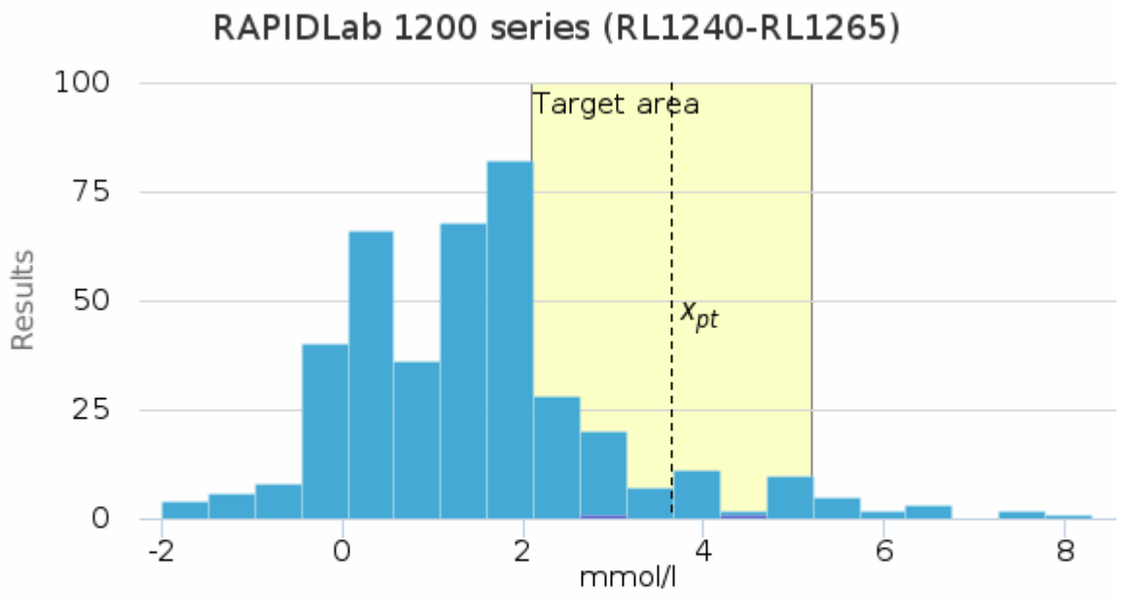


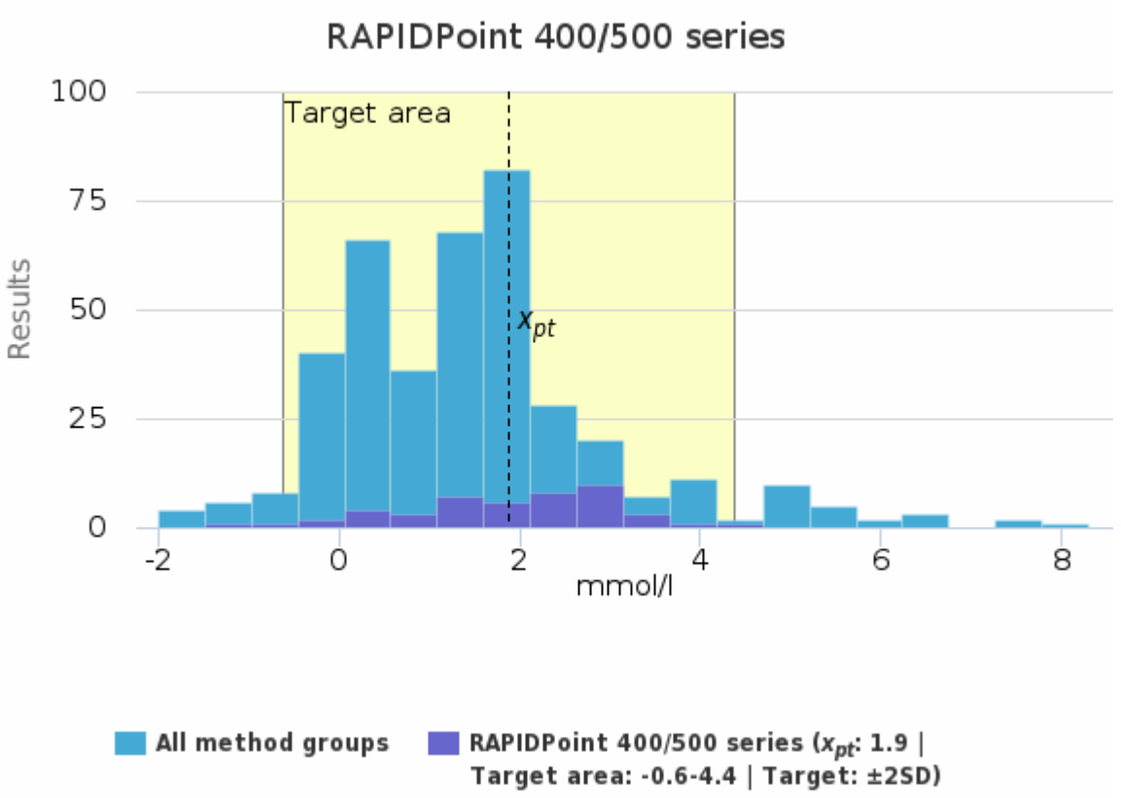




Acid-base status and electrolytes, February, 1-2023



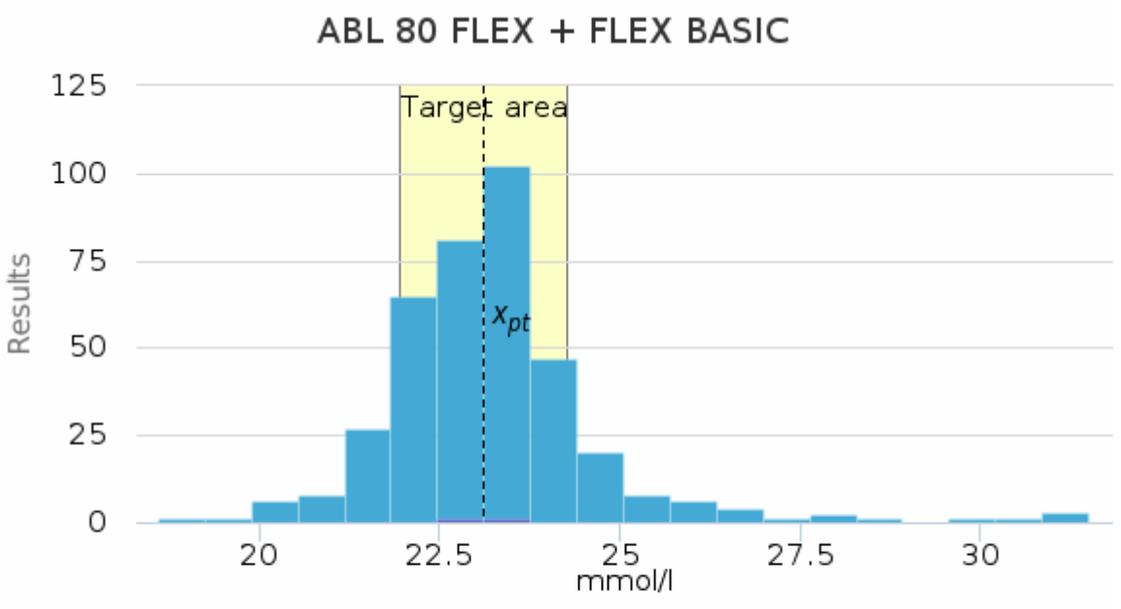


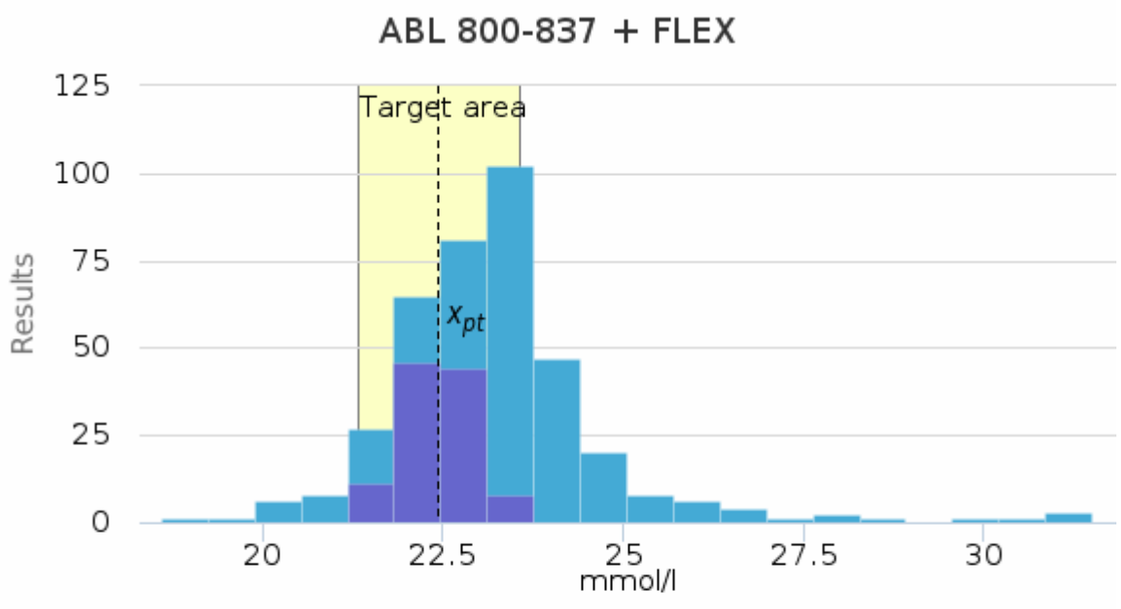


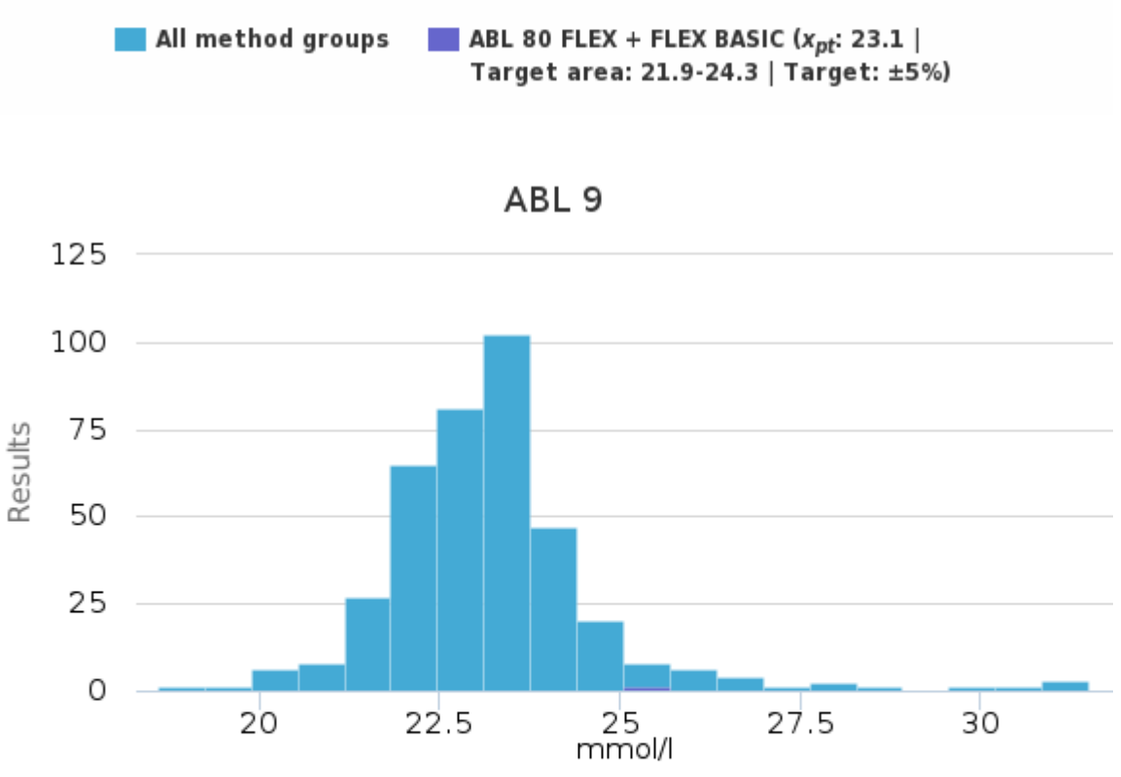
Sample S003 | HCO3, mmol/l

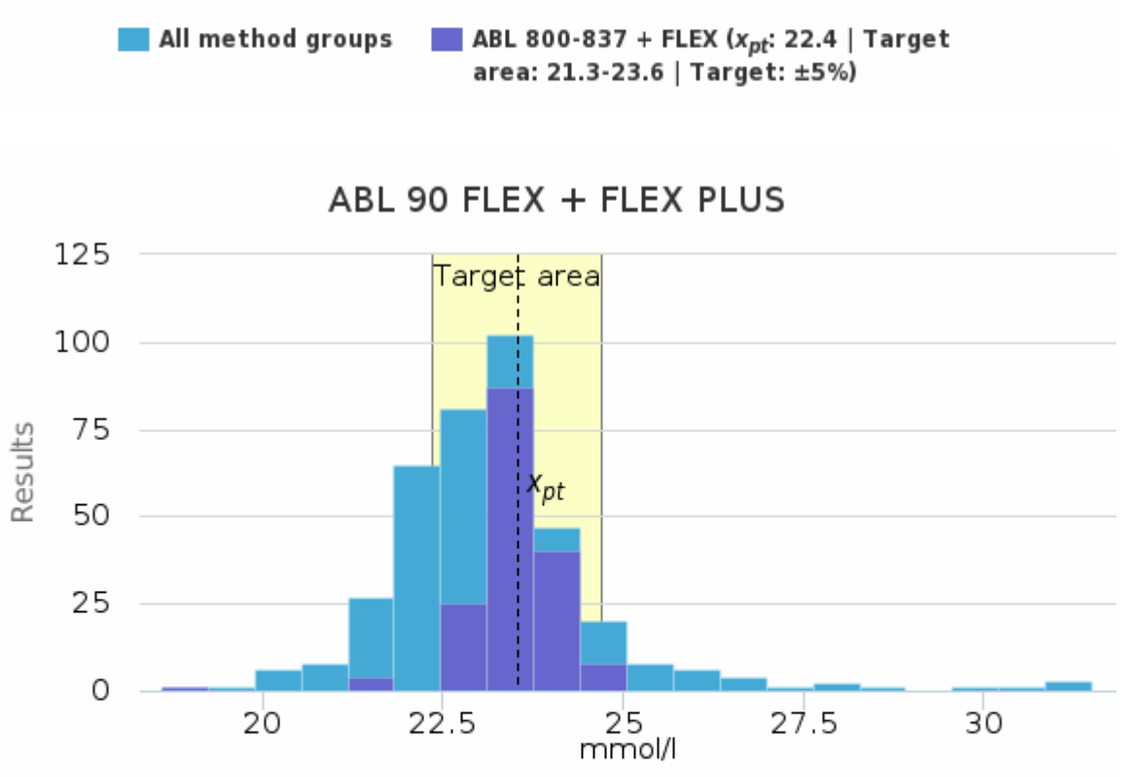
Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
ABL 80 FLEX + FLEX BASIC	23.1	23.1	0.3	1.2	0.2	22.9	23.3	-	2
ABL 800-837 + FLEX	22.4	22.4	0.5	2.0	<0.1	21.4	23.5	-	109
ABL 9	-	-	-	-	-	25.3	25.3	-	1
ABL 90 FLEX + FLEX PLUS	23.5	23.5	0.5	2.2	<0.1	21.6	25.0	1	165
Cobas b 221 / AVL 9180	22.0	22.1	0.3	1.2	<0.1	21.6	22.2	-	7
epoc Blood Analysis System	21.7	21.7	0.7	3.3	0.3	20.6	22.6	-	8
Gem Premier 3000-3500	25.1	24.8	0.8	3.3	0.4	24.2	26.4	-	5
Gem Premier 4000	27.4	25.9	3.6	13.1	2.1	24.8	31.5	-	3
Gem Premier 5000	28.5	28.9	2.5	8.8	0.9	24.8	31.5	-	8
i-STAT	25.0	25.0	1.0	3.8	0.2	23.3	27.0	-	15
i-STAT Alinity	25.3	25.4	0.5	2.1	0.2	24.5	25.9	-	7
RAPIDLab 1200 series (RL1240-RL1265)	23.0	22.6	1.2	5.3	0.7	22.1	24.4	-	3
RAPIDPoint 400/500 series	22.2	22.1	1.4	6.5	0.2	19.3	26.7	2	52
All	**23.1**	**23.2**	**1.2**	**5.0**	**<0.1**	**19.3**	**27.7**	**8**	**385**

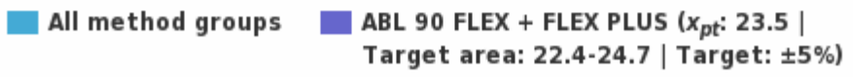
Sample S003 | HCO3, mmol/l| histogram summaries in LabScala



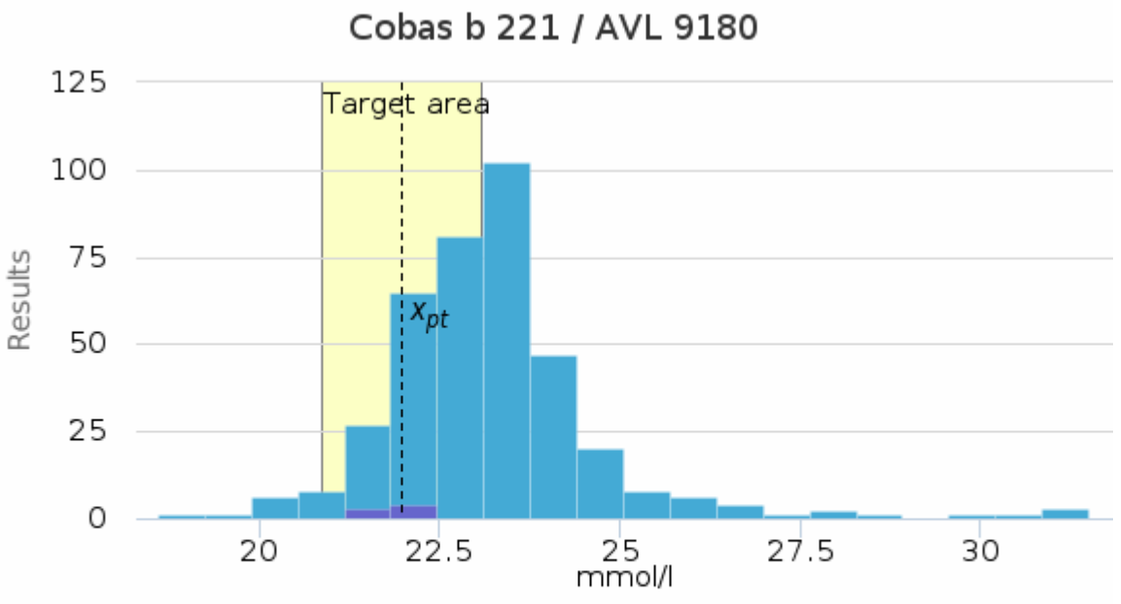


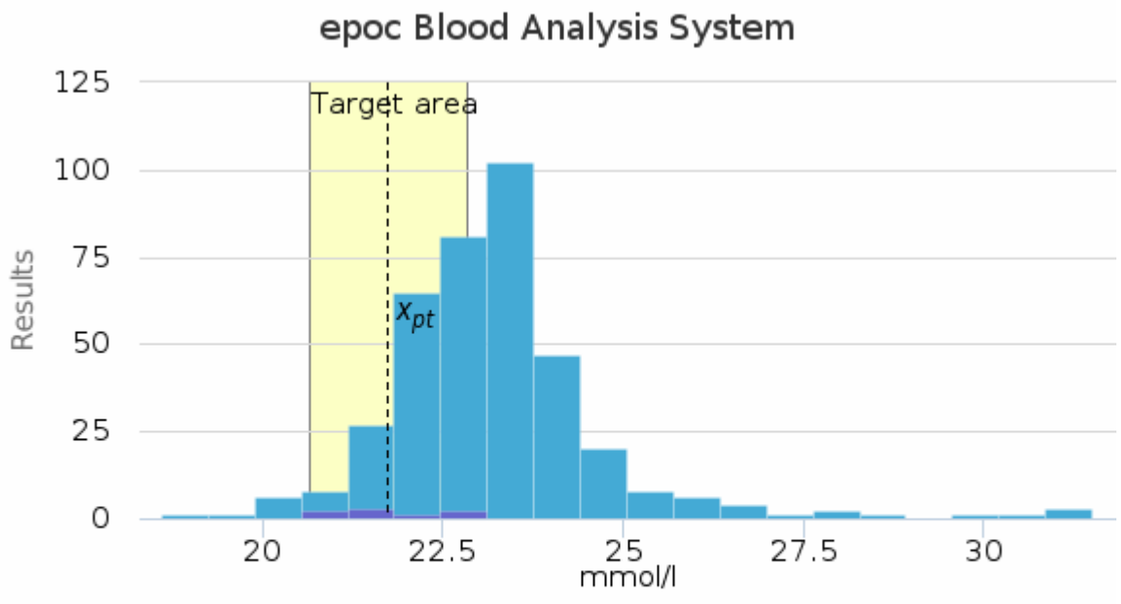


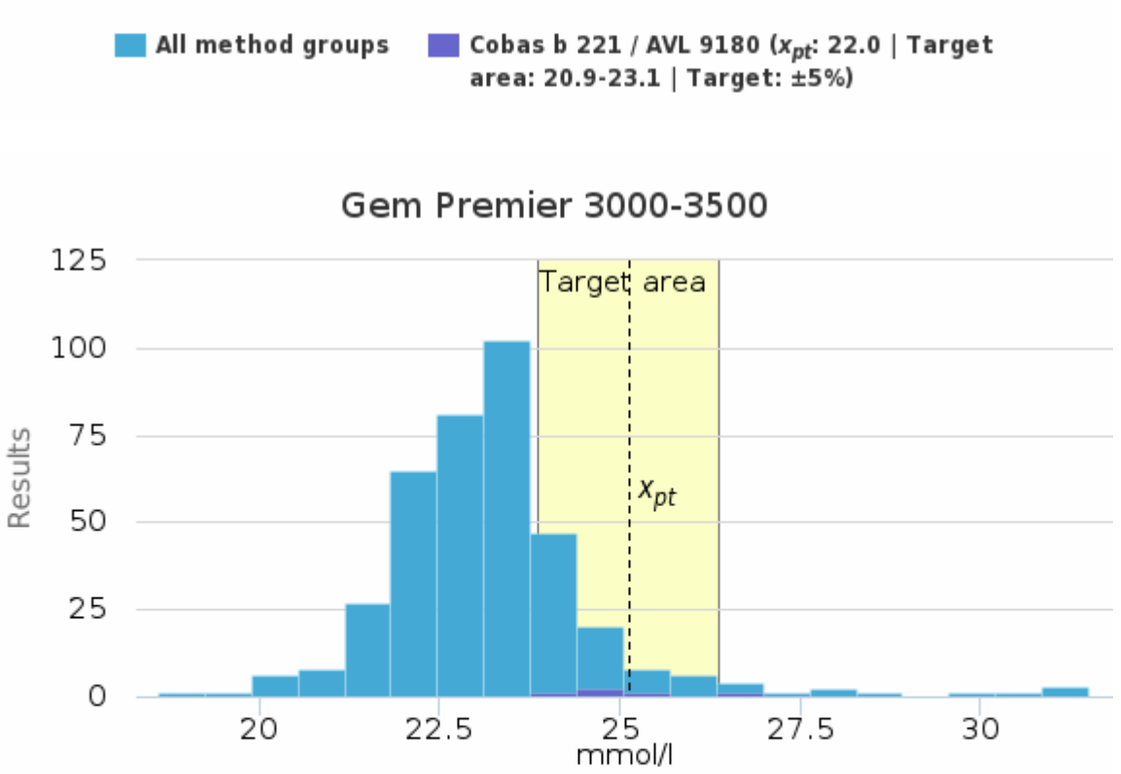


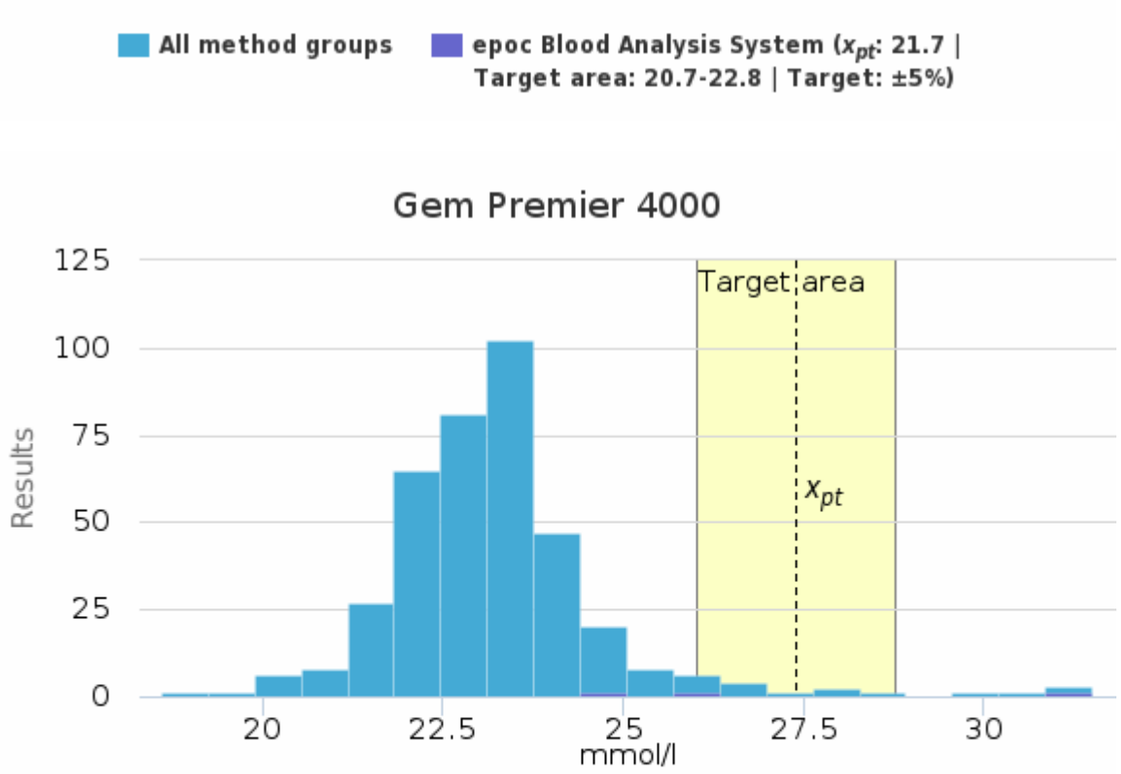


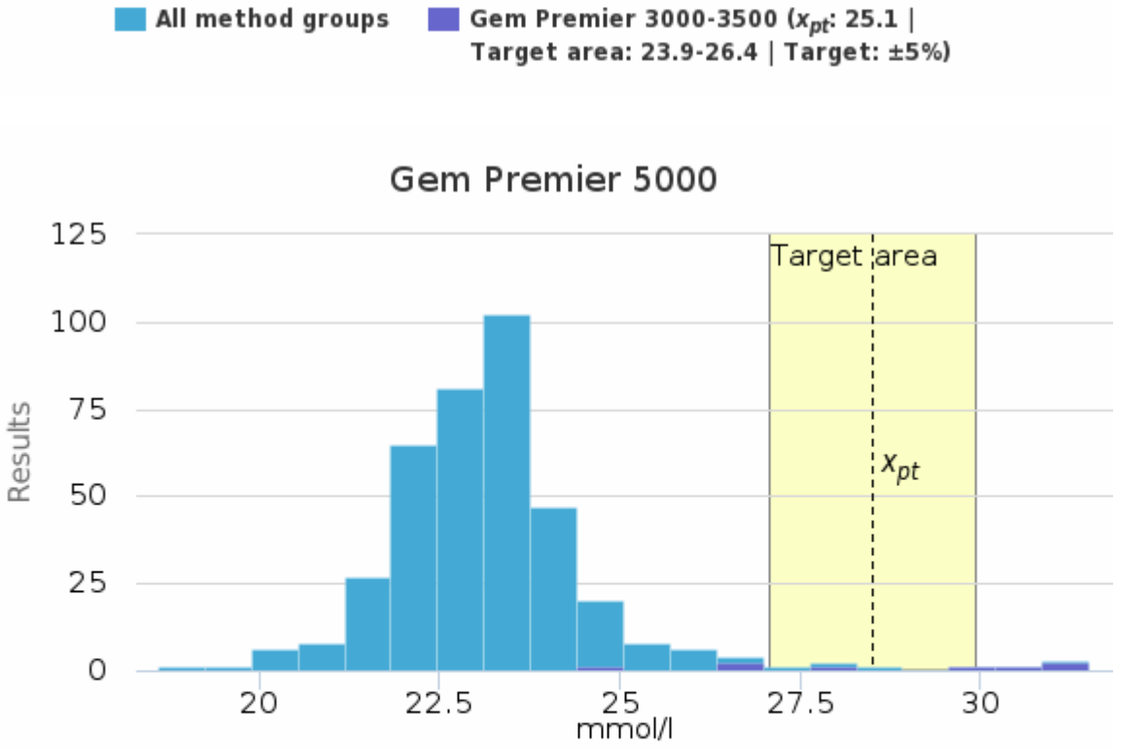
Acid-base status and electrolytes, February, 1-2023

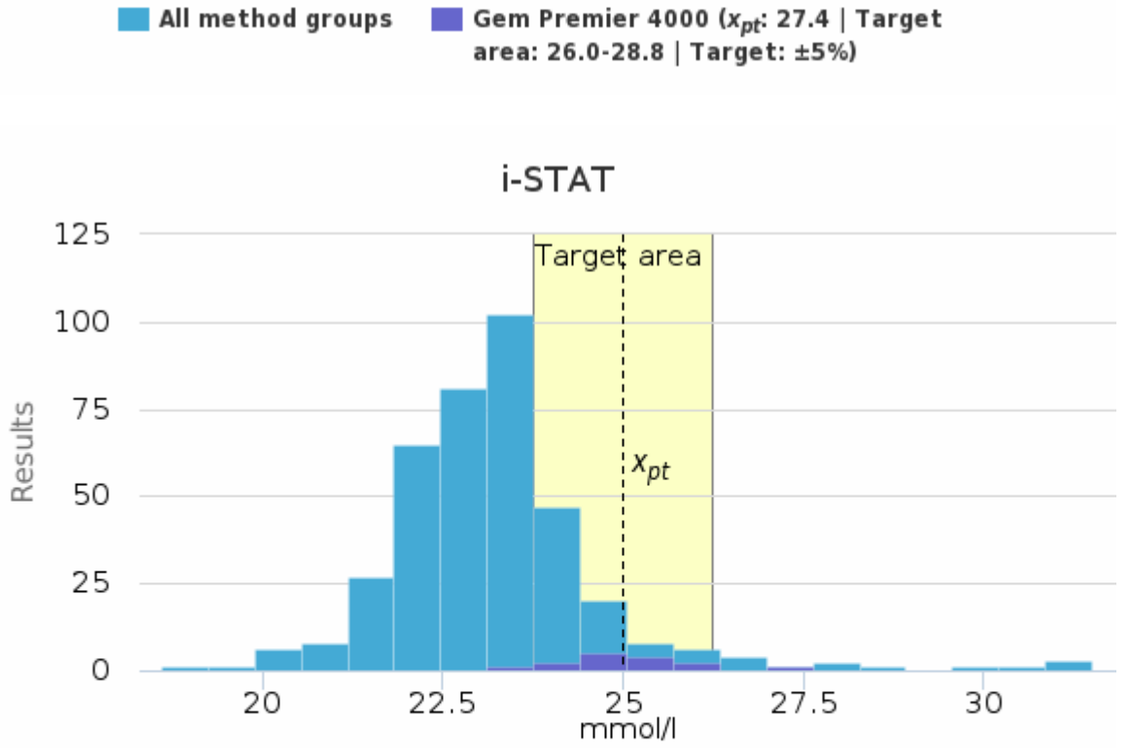




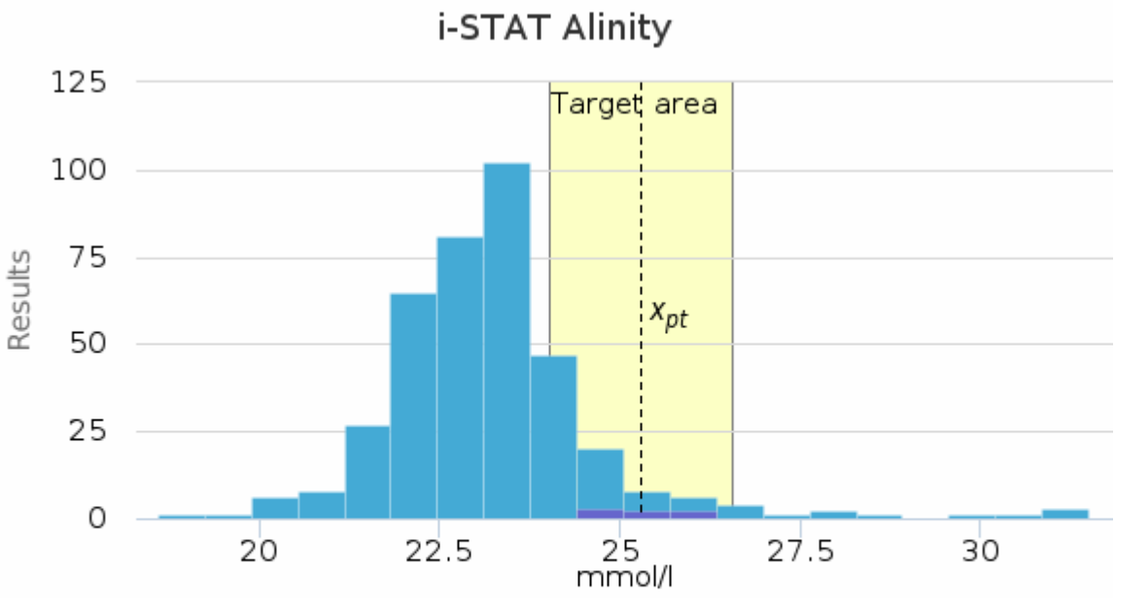


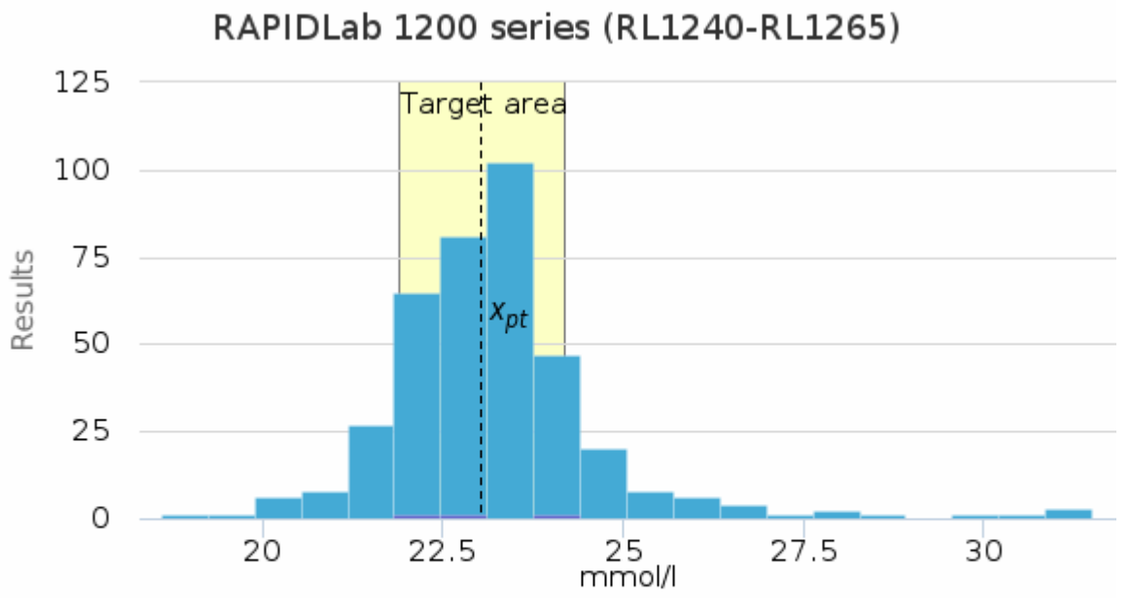


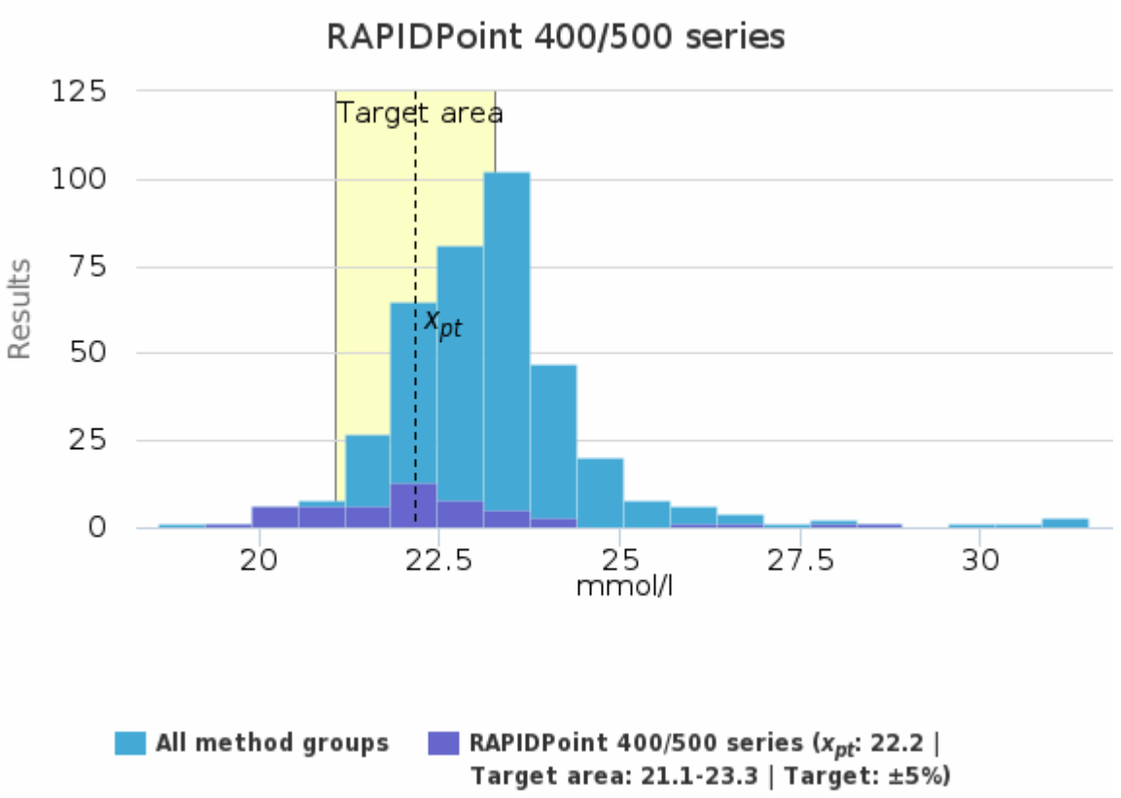




Acid-base status and electrolytes, February, 1-2023







Report info

Participants

200 participants from 12 countries.

Report info

Your own result should be compared to others using the same method.
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). Additionally, if the measurement uncertainty of the target value is large an automatic text is printed on the report: “The uncertainty of the assigned value is not negligible, and evaluations could be affected.”
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

Acid-base status and electrolytes Round 1, 2023

Specimens
Samples S001-S003 (LQ750823011-013) were buffer solution prepared by tonometry (O_2, CO_2 and nitrogen) and addition of pure salts and purified animal albumin to physiologically buffered matrix.

Based on the previous tests and the results of this round, the samples were homogeneous, stable and suitable for the external quality assessment scheme. The materials were sent without temperature control packaging.

Report info
Please see the description of the data analysis on the last page of the laboratory-specific histograms and Numerical Summary reports. It is important to read the Final report first, because it contains important information of the samples and results in each round.

The target area for base excess is mean ± 2SD. The diff-% are not seen in base excess graphs and the text of the results uncertainty is not seen either.

Comments – Expert
From sample S001 in the ABL 800-837 + FLEX method group > 15 mmol/L lactate result was reported and in the epoc Blood Analysis System method group < 1.5 mmol/L potassium result and from sample S003 in the ABL 800-837 + FLEX method group two > 7.550 pH results and two < 0.51 mmol/L Ca-ion actual results and in the i-STAT Alinity method group < 20 µmol/L creatinine result.

In this round, the lowest partial pressure of O_2 (S001) was around 12 kPa, with an overall CV% of 10.4. The precision in the different method was generally lower. The histogram for this sample was bimodal with a systematic difference between the two largest method groups. In S002 and S003, the partial pressure of O_2 was closer to room air (slightly below and above). The histograms were unimodal and the overall CV% were 3.7% and 3.3% respectively. In contrast to blood, the samples do not contain hemoglobin. Thus, they contain only physically dissolved oxygen, and the total amount of oxygen is less than 5% of a blood sample with the same partial pressure of oxygen.

The partial pressure of oxygen in room air is about 21 kPa, thus if your result was higher than target value (for target below 21 kPa, S001 ja S002) or lower than expected (for target above 21 kPa, S003) this might be because some oxygen molecules entered from the surrounding air or left the liquid during preparation, respectively. It is important that the instruction (sent with the samples) for the preparation of the samples is followed. Samples must be adapted to room temperature (25 + 1 °C) and protected from sunlight before use. The mixing and shaking to form a solid layer of bubbles on the surface of the liquid is essential to keep the sample apart from room air, and it is important to allow bubbles to rise (30 - 60 sec) between shaking and opening the ampoule.

For base excess (BE), you do not need to pay attention to the high CV% of results, but rather use target area in the histograms (mean ± 2SD) as a quality goal. When BE is close to zero, the BE CV% turn out to be very high. For most instruments, two different versions of BE are available: BE (ecf) and BE (b). BE (ecf), also denoted standard BE, is recommended, and should be reported in these EQA rounds.

2023-03-14

FINAL REPORT

Product no. 2610

Samples sent	2023-02-06
Round closed	2023-02-24
Final report	2023-03-14

Request for correction
Typing errors in laboratory's result forms are on laboratory's responsibility. Labquality accepts responsibility only for result processing. Requests must be notified by writing within three weeks from the date of this letter.

Authorized by
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The CV% for the electrolytes was generally low. There is a bimodal pattern for sodium (Na) results with a minor systematic difference between the two largest method groups.

End of report