



Mahidol University
Faculty of Medical Technology

Individual Report

The External Quality Assessment Scheme in Hormones (EQAH)

Participant ID: EH20221320

Trial: 124

Contact

EQAH
Faculty of Medical Technology
Mahidol University (Salaya Campus)
999 Phuttamonthon 4 Road, Salaya
Nakhon Pathom 73170 Thailand
Tel: 081-620-6394
E-mail: eqahmumt@gmail.com

Authorized by:

Asst. Prof. Theerawut Chanmee, Ph.D
Program Co-ordinator

"This document is proprietary and confidential"

Refer to the User Guide for additional information on the EQAH program (EQAH report, statistic and interpretation)

Total T3, ng/dL

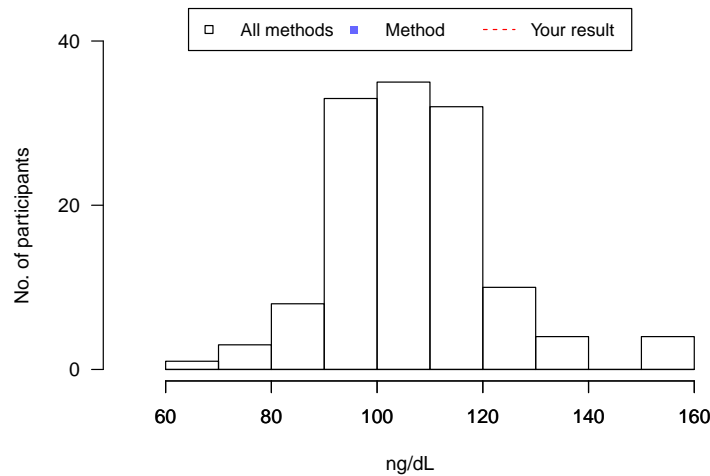
Sample 1

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	125	106.00	11.27	10.63	1.26	8
NA	NA	NA	NA	NA	NA	NA

B. Individual result

Your Result	Med	z-score	%Dev
NA	NA	NA	NA



C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular Abbott Architect Series; Alinity Mindray CL 1000i, 2000i, 6000i	39	108.00	6.00	5.56	1.20	4
Maglumi Series 800, 1000	12	111.00	5.19	4.68	1.87	1
Beckman, access series DXi	10	100.45	8.37	8.33	3.31	2
Johnson vitros Eci. 3600, 5600, XT7600	5	119.00	6.89	5.79	3.85	2
Other	4	NA	NA	NA	NA	NA
Tosoh AIA series	3	NA	NA	NA	NA	NA
Liaison; Liaison XL	3	NA	NA	NA	NA	NA
Advia centaur CP; XP	3	NA	NA	NA	NA	NA
Bio merieux; Vidas; Mini Vidas	2	NA	NA	NA	NA	NA

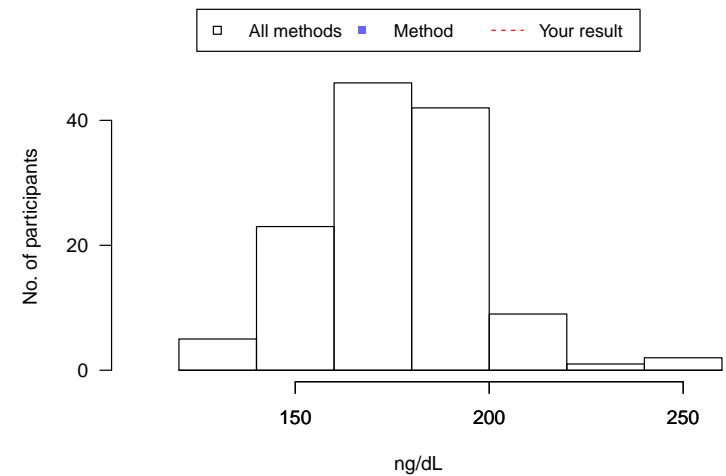
Sample 2

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	124	176.40	17.18	9.74	1.93	9
NA	NA	NA	NA	NA	NA	NA

B. Individual result

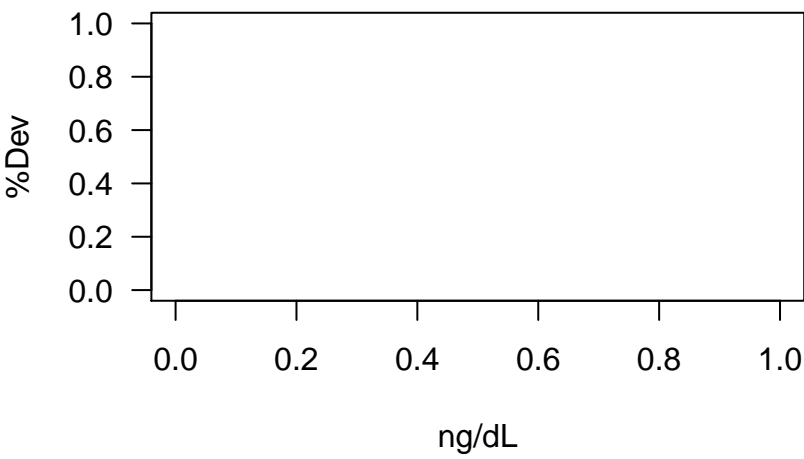
Your Result	Med	z-score	%Dev
NA	NA	NA	NA



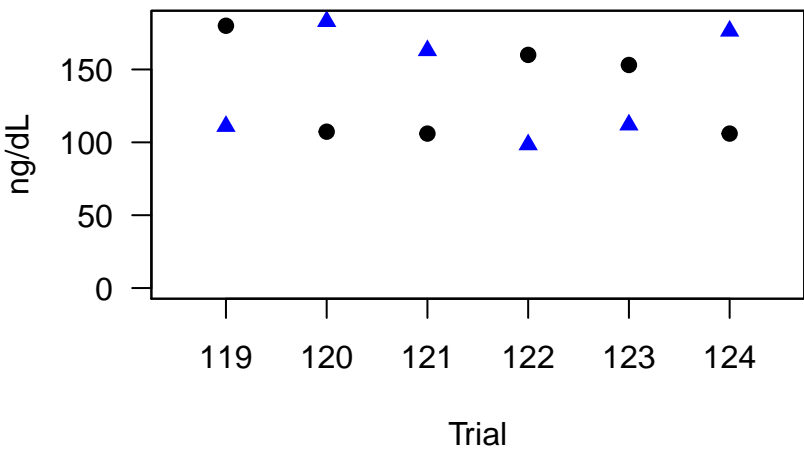
C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular Abbott Architect Series; Alinity Mindray CL 1000i, 2000i, 6000i	41	178.70	12.97	7.26	2.53	2
Beckman, access series DXi	11	170.64	15.57	9.12	5.87	1
Maglumi Series 800, 1000	11	182.00	6.67	3.66	2.51	2
Johnson vitros Eci. 3600, 5600, XT7600	5	193.00	9.23	4.78	5.16	2
Liaison; Liaison XL	4	NA	NA	NA	NA	NA
Tosoh AIA series	3	NA	NA	NA	NA	NA
Advia centaur CP; XP	3	NA	NA	NA	NA	NA
Other	3	NA	NA	NA	NA	NA
Bio merieux; Vidas; Mini Vidas	2	NA	NA	NA	NA	NA

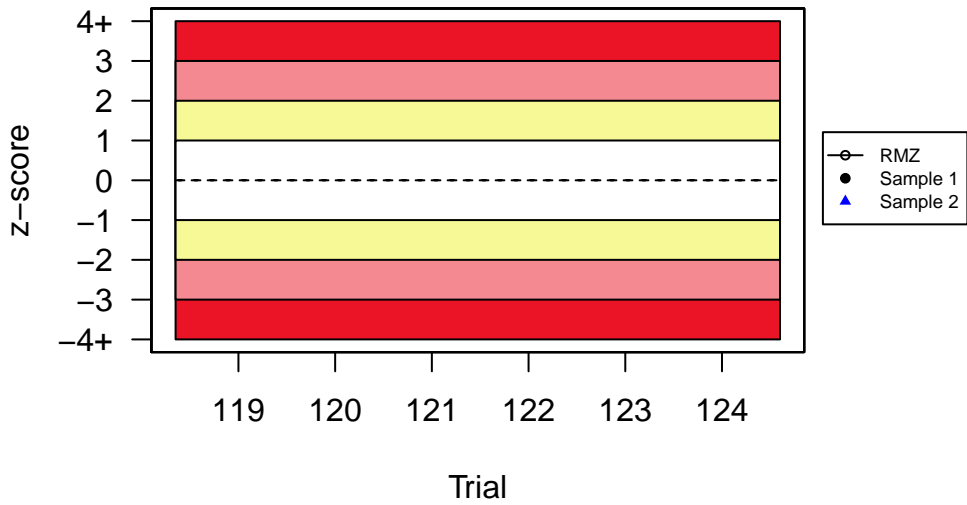
D. Overall deviations for Total T3



E. Overall consensus responses for Total T3



F. Overall z-score for Total T3



Total T4, µg/dL

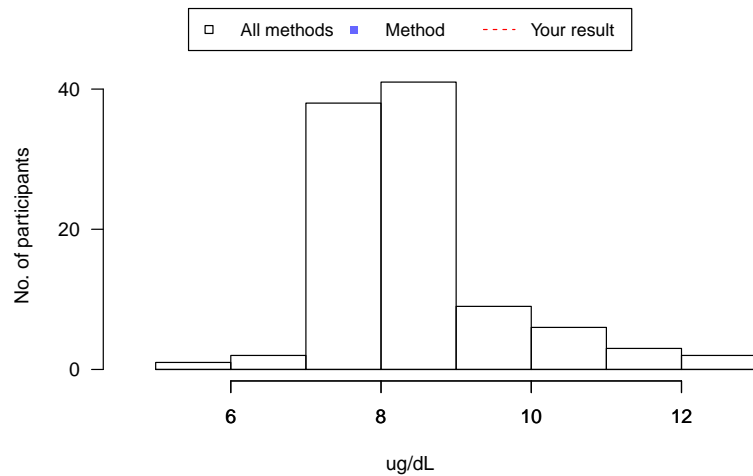
Sample 1

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	92	8.10	0.67	8.27	0.09	14
NA	NA	NA	NA	NA	NA	NA

B. Individual result

Your Result	Med	z-score	%Dev
NA	NA	NA	NA



C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular Abbott Architect Series; Alinity Mindray CL 1000i, 2000i, 6000i	32	8.33	0.50	6.00	0.11	1
Beckman, access series DXi	8	11.43	1.16	10.15	0.51	0
Maglumi Series 800, 1000	8	8.12	0.45	5.54	0.20	0
Johnson vitros Eci. 3600, 5600, XT7600	5	9.04	0.35	3.87	0.20	1
Other	4	NA	NA	NA	NA	NA
Tosoh AIA series	3	NA	NA	NA	NA	NA
Liaison; Liaison XL	3	NA	NA	NA	NA	NA
Advia centaur CP; XP	3	NA	NA	NA	NA	NA
Bio merieux; Vidas; Mini Vidas	2	NA	NA	NA	NA	NA

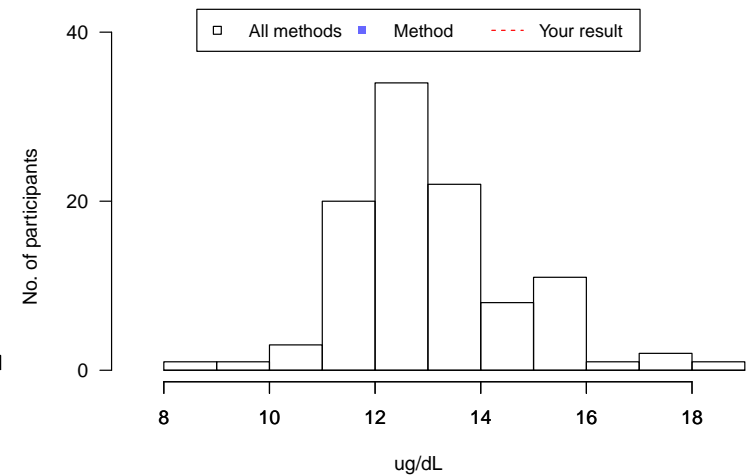
Sample 2

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	99	12.80	1.22	9.53	0.15	7
NA	NA	NA	NA	NA	NA	NA

B. Individual result

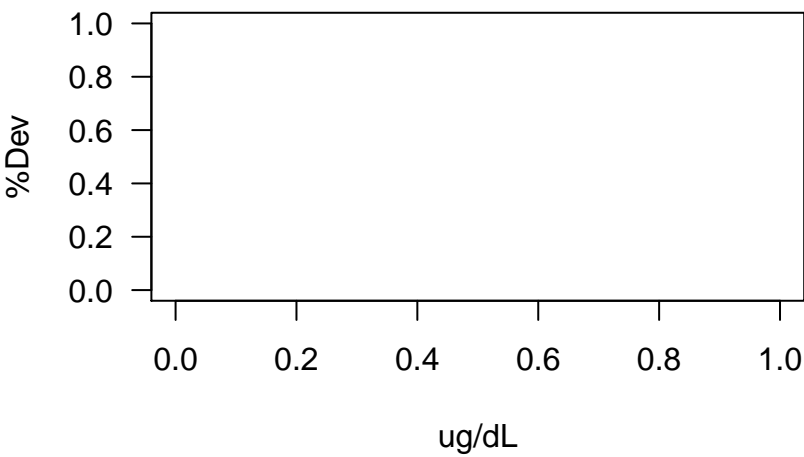
Your Result	Med	z-score	%Dev
NA	NA	NA	NA



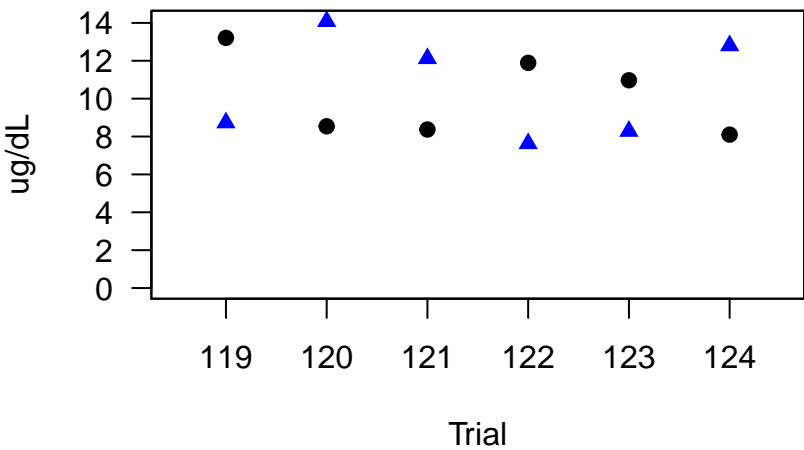
C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular Abbott Architect Series; Alinity Mindray CL 1000i, 2000i, 6000i	32	13.27	0.84	6.33	0.19	1
Beckman, access series DXi	8	15.29	1.46	9.55	0.65	0
Maglumi Series 800, 1000	7	11.12	0.46	4.14	0.22	1
Johnson vitros Eci. 3600, 5600, XT7600	5	14.55	0.71	4.88	0.40	1
Tosoh AIA series	3	NA	NA	NA	NA	NA
Liaison; Liaison XL	3	NA	NA	NA	NA	NA
Advia centaur CP; XP	3	NA	NA	NA	NA	NA
Other	3	NA	NA	NA	NA	NA
Bio merieux; Vidas; Mini Vidas	2	NA	NA	NA	NA	NA

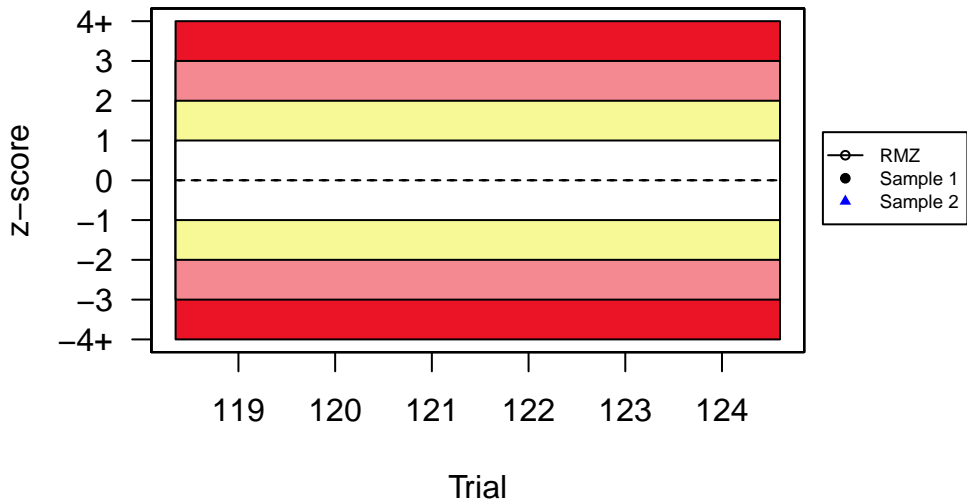
D. Overall deviations for Total T4



E. Overall consensus responses for Total T4



F. Overall z-score for Total T4



Free T3, pg/mL

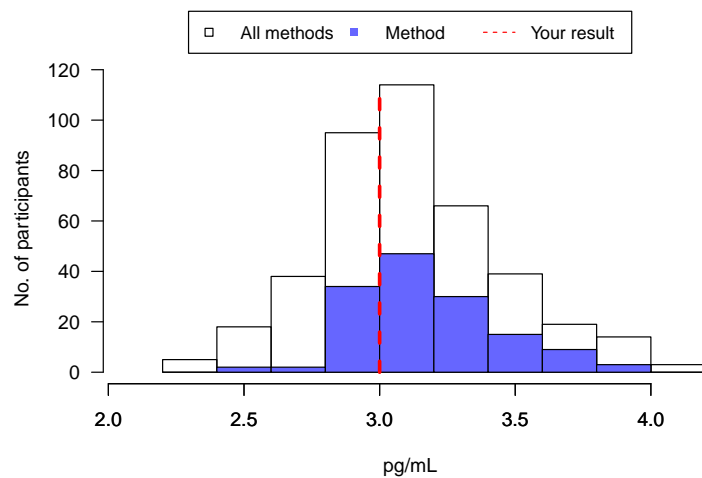
Sample 1

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	396	3.07	0.27	8.79	0.02	20
Roche; Cobas series; Elecsys series; Modular	139	3.15	0.26	8.25	0.03	3

B. Individual result

Your Result	Med	z-score	%Dev
3	3.15	-0.58	-4.76



C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular	139	3.15	0.26	8.25	0.03	3
Abbott Architect Series; Alinity Beckman, access series DXi	62	2.80	0.18	6.43	0.03	2
Mindray CL 1000i, 2000i, 6000i	47	3.13	0.12	3.83	0.02	1
Maglumi Series 800, 1000	43	3.41	0.32	9.38	0.06	3
Johnson vitros Eci. 3600, 5600, XT7600	36	2.98	0.12	4.03	0.02	4
Liaison; Liaison XL	23	3.50	0.47	13.43	0.12	1
Other	18	2.81	0.23	8.19	0.07	1
Tosoh AIA series	12	3.12	0.42	13.46	0.15	0
Advia centaur CP; XP	7	2.52	0.18	7.14	0.09	0
	6	3.21	0.15	4.67	0.08	0
Bio merieux;	4	NA	NA	NA	NA	NA
Vidas; Mini Vidas	4	NA	NA	NA	NA	NA
Sysmex HISCL-800	4	NA	NA	NA	NA	NA

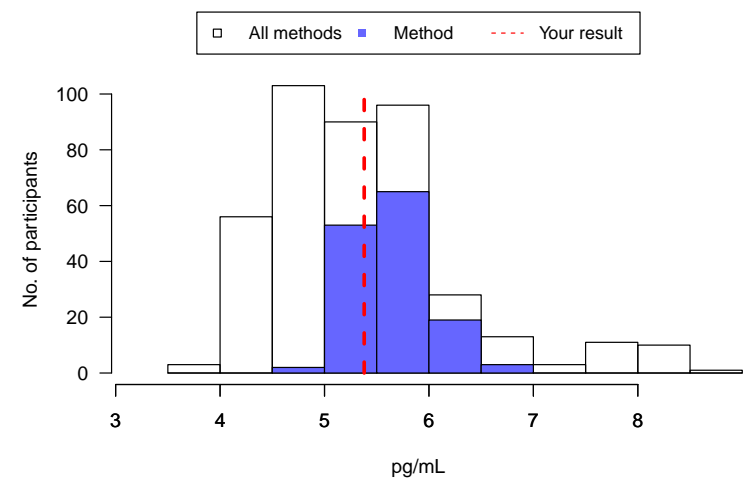
Sample 2

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	390	5.26	0.72	13.69	0.05	26
Roche; Cobas series; Elecsys series; Modular	138	5.58	0.35	6.27	0.04	4

B. Individual result

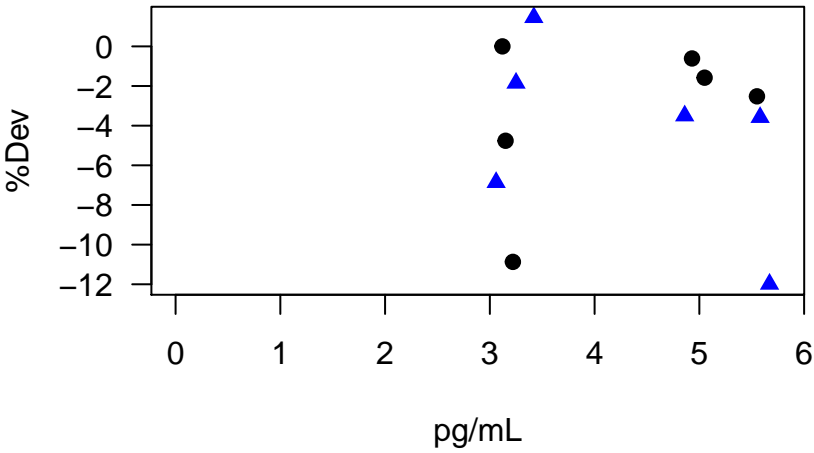
Your Result	Med	z-score	%Dev
5.38	5.58	-0.57	-3.58



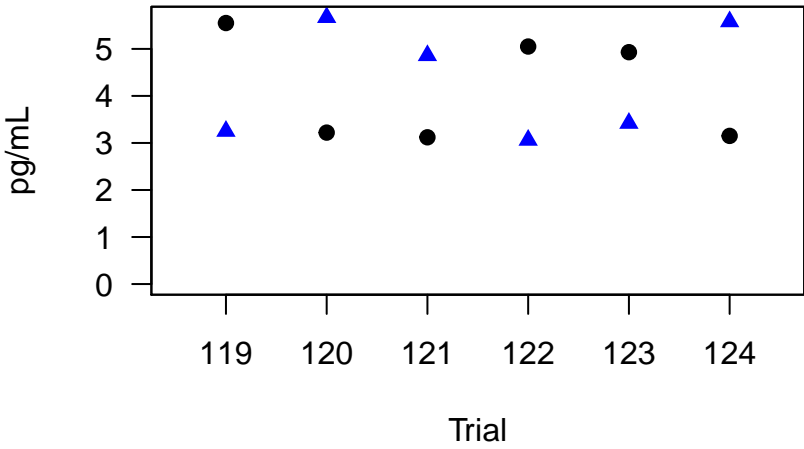
C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular	138	5.58	0.35	6.27	0.04	4
Abbott Architect Series; Alinity Beckman, access series DXi	62	4.70	0.29	6.17	0.05	2
Mindray CL 1000i, 2000i, 6000i	47	4.51	0.29	6.43	0.05	1
Maglumi Series 800, 1000	43	5.84	0.49	8.39	0.09	3
Johnson vitros Eci. 3600, 5600, XT7600	38	4.62	0.28	6.06	0.06	2
Liaison; Liaison XL	23	7.96	0.45	5.65	0.12	1
Other	18	5.40	0.27	5.00	0.08	1
Advia centaur CP; XP	11	5.20	1.05	20.19	0.40	1
Tosoh AIA series	6	5.21	0.27	5.18	0.14	0
	5	5.08	0.08	1.57	0.04	2
Bio merieux;	4	NA	NA	NA	NA	NA
Vidas; Mini Vidas	4	NA	NA	NA	NA	NA
Sysmex HISCL-800	3	NA	NA	NA	NA	NA

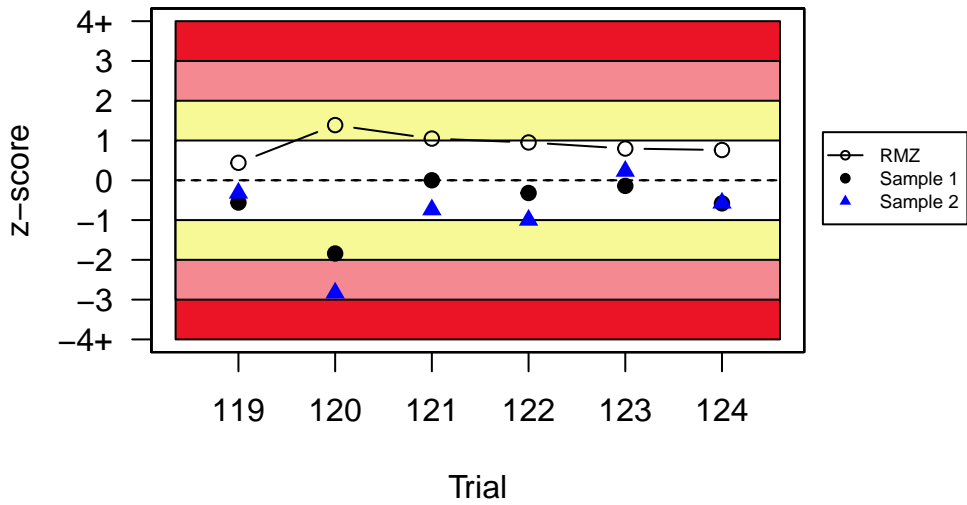
D. Overall deviations for Free T3



E. Overall consensus responses for Free T3



F. Overall z-score for Free T3



Free T4, ng/dL

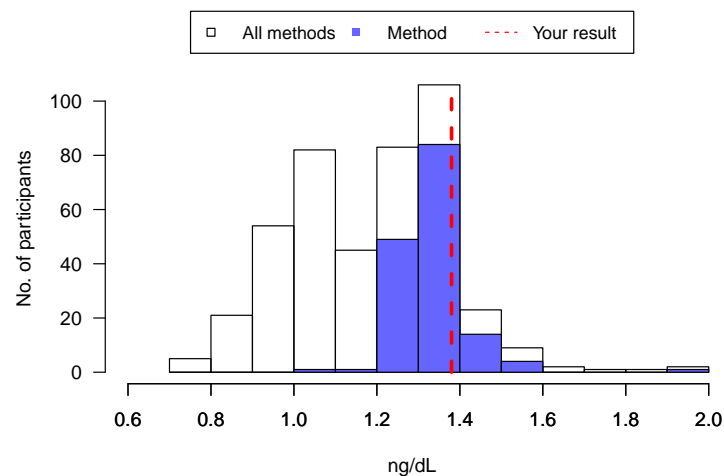
Sample 1

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	431	1.21	0.22	18.18	0.01	5
Roche; Cobas series; Elecsys series; Modular	147	1.32	0.05	3.79	0.01	8

B. Individual result

Your Result	Med	z-score	%Dev
1.38	1.32	1.20	4.55



C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular	147	1.32	0.05	3.79	0.01	8
Abbott Architect Series; Alinity Beckman, access series DXi	64	1.03	0.05	4.85	0.01	1
Mindray CL 1000i, 2000i, 6000i	48	0.91	0.07	7.69	0.01	1
Maglumi Series 800, 1000	43	1.03	0.08	7.77	0.02	4
	38	1.17	0.09	7.69	0.02	4
Johnson vitros Eci. 3600, 5600, XT7600	21	1.34	0.07	5.22	0.02	3
Liaison; Liaison XL	18	1.20	0.09	7.50	0.03	3
Other	12	1.21	0.16	13.22	0.06	0
Tosoh AIA series	7	1.43	0.14	9.79	0.07	0
Advia centaur CP; XP	6	1.36	0.05	3.68	0.03	0
Bio merieux; Vidas; Mini Vidas	3	NA	NA	NA	NA	NA
Sysmex HISCL-800	3	NA	NA	NA	NA	NA

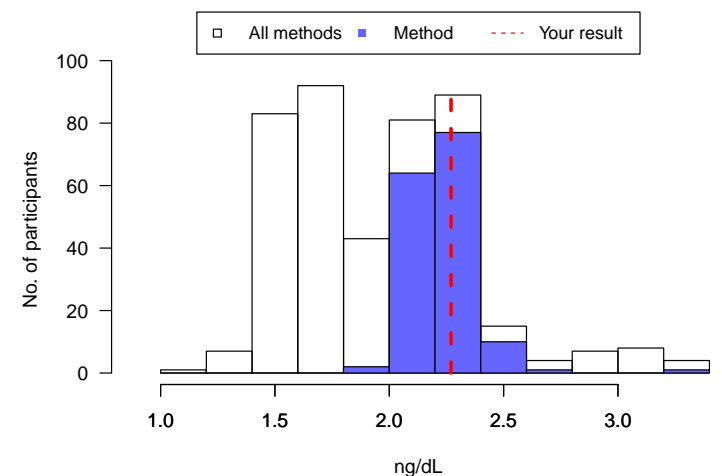
Sample 2

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	429	1.93	0.43	22.28	0.03	7
Roche; Cobas series; Elecsys series; Modular	148	2.21	0.10	4.52	0.01	7

B. Individual result

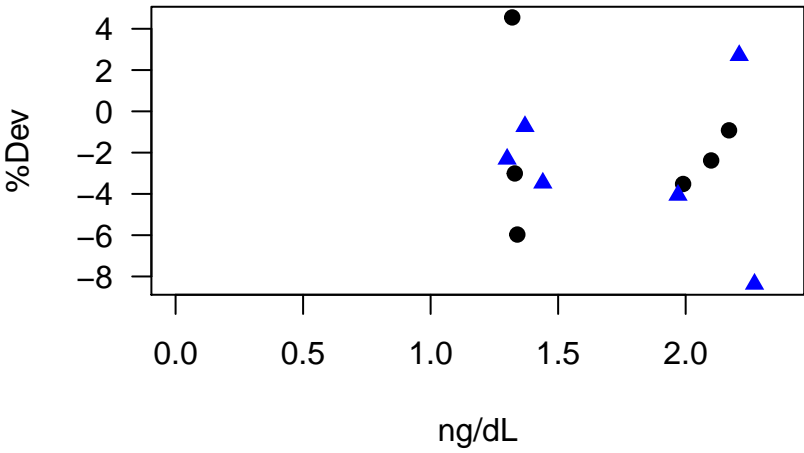
Your Result	Med	z-score	%Dev
2.27	2.21	0.6	2.71



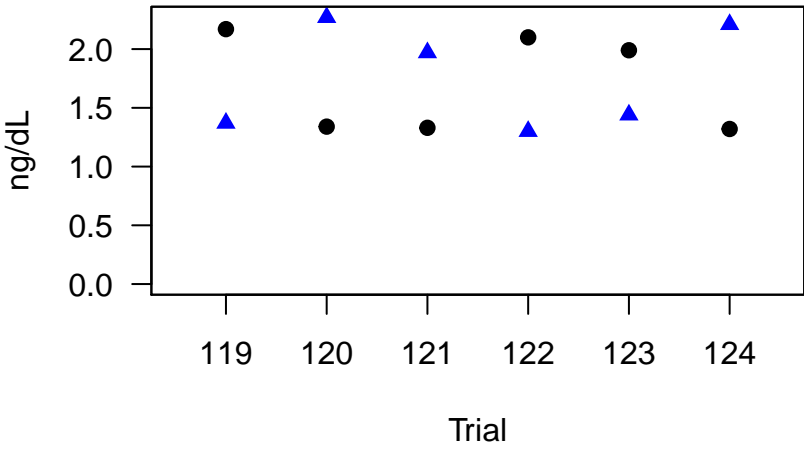
C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular	148	2.21	0.10	4.52	0.01	7
Abbott Architect Series; Alinity Beckman, access series DXi	64	1.60	0.08	5.00	0.01	1
Mindray CL 1000i, 2000i, 6000i	47	1.51	0.09	5.96	0.02	2
Maglumi Series 800, 1000	45	1.66	0.13	7.83	0.02	2
	40	1.78	0.13	7.30	0.03	2
Liaison; Liaison XL	19	1.97	0.13	6.60	0.04	2
Johnson vitros Eci. 3600, 5600, XT7600	18	3.01	0.12	3.99	0.04	6
Other	12	1.91	0.37	19.37	0.13	0
Tosoh AIA series	7	2.35	0.08	3.40	0.04	0
Advia centaur CP; XP	5	2.20	0.06	2.73	0.03	1
Bio merieux; Vidas; Mini Vidas	4	NA	NA	NA	NA	NA
Sysmex HISCL-800	4	NA	NA	NA	NA	NA

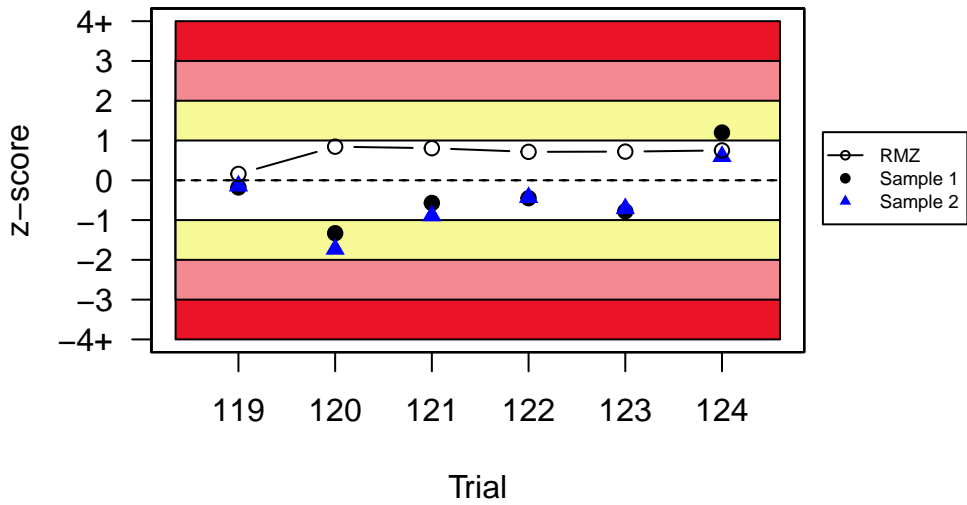
D. Overall deviations for Free T4



E. Overall consensus responses for Free T4



F. Overall z-score for Free T4



TSH, $\mu\text{IU/mL}$

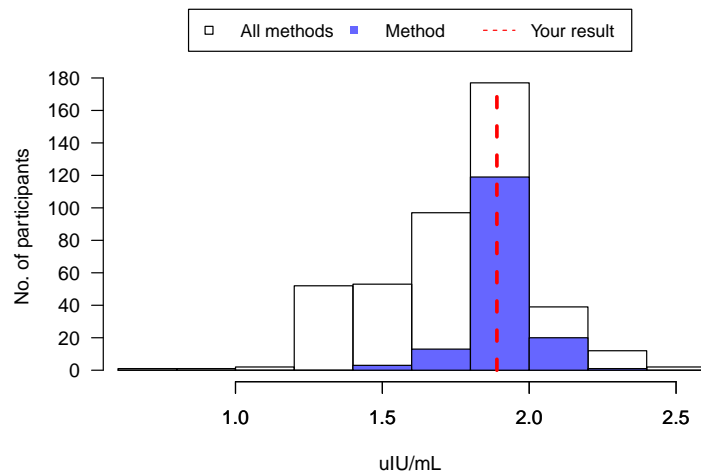
Sample 1

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	433	1.815	0.241	13.28	0.014	6
Roche; Cobas series; Elecsys series; Modular	148	1.900	0.083	4.37	0.009	8

B. Individual result

Your Result	Med	z-score	%Dev
1.89	1.900	-0.12	-0.53



C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular	148	1.900	0.083	4.37	0.009	8
Abbott Architect Series; Alinity Beckman, access series DXi	63	1.346	0.092	6.84	0.014	2
Mindray CL 1000i, 2000i, 6000i	48	1.750	0.122	6.97	0.022	2
Maglumi Series 800, 1000	46	1.986	0.214	10.78	0.039	1
Johnson vitros Eci. 3600, 5600, XT7600	40	1.680	0.141	8.39	0.028	2
Liaison; Liaison XL	21	1.818	0.073	4.02	0.020	3
Other	19	1.442	0.084	5.83	0.024	2
Tosoh AIA series	13	1.711	0.219	12.80	0.076	0
Advia centaur CP; XP	7	1.931	0.164	8.49	0.077	0
	6	1.501	0.181	12.06	0.092	0
Sysmex HISCL-800	4	NA	NA	NA	NA	NA
Bio merieux; Vidas; Mini Vidas	3	NA	NA	NA	NA	NA

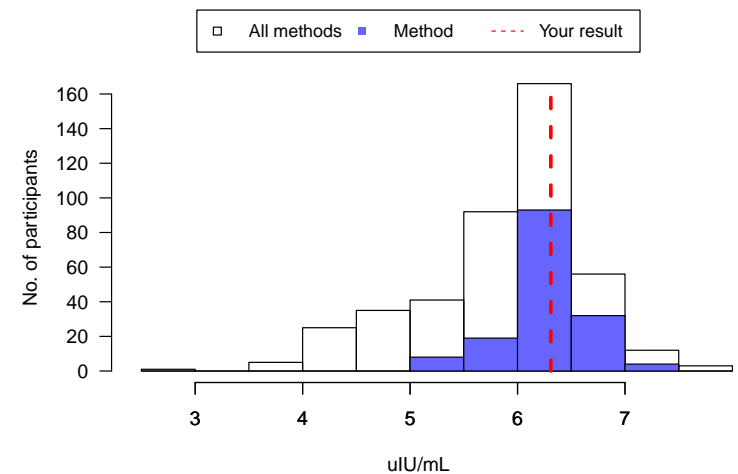
Sample 2

A. All participants' result

	N	Med	nIQR	%CV	Ux	Out
All methods	424	6.070	0.600	9.88	0.036	15
Roche; Cobas series; Elecsys series; Modular	145	6.315	0.274	4.34	0.028	11

B. Individual result

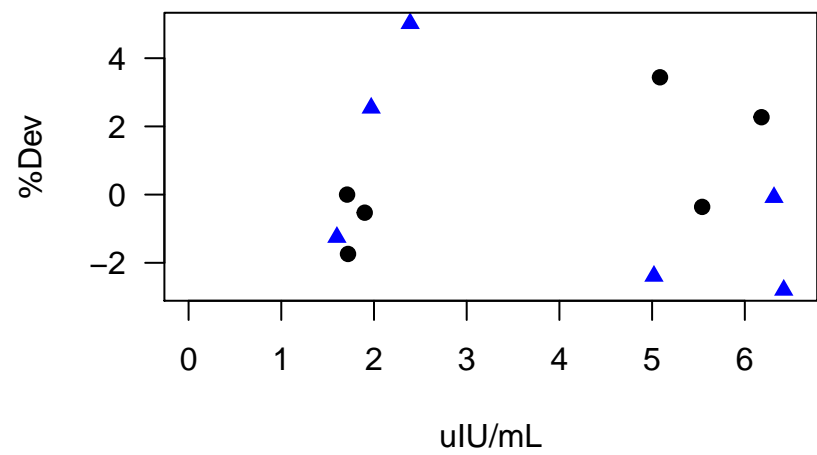
Your Result	Med	z-score	%Dev
6.31	6.315	-0.02	-0.08



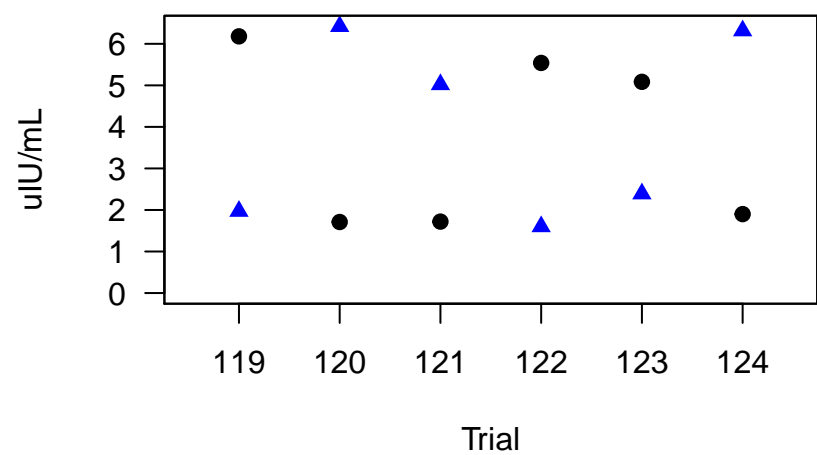
C. List of Methods

	N	Med	nIQR	%CV	Ux	Out
Roche; Cobas series; Elecsys series; Modular	145	6.315	0.274	4.34	0.028	11
Abbott Architect Series; Alinity Beckman, access series DXi	63	4.660	0.409	8.78	0.064	2
Mindray CL 1000i, 2000i, 6000i	47	6.046	0.315	5.21	0.057	3
Maglumi Series 800, 1000	46	5.618	0.582	10.36	0.107	1
Johnson vitros Eci. 3600, 5600, XT7600	40	5.947	0.282	4.74	0.056	2
Liaison; Liaison XL	24	6.434	0.496	7.71	0.127	0
Other	18	6.094	0.605	9.93	0.178	3
Tosoh AIA series	11	5.937	0.632	10.65	0.238	2
Advia centaur CP; XP	7	6.147	0.497	8.09	0.235	0
	5	4.964	0.433	8.72	0.242	1
Sysmex HISCL-800	4	NA	NA	NA	NA	NA
Bio merieux; Vidas; Mini Vidas	3	NA	NA	NA	NA	NA

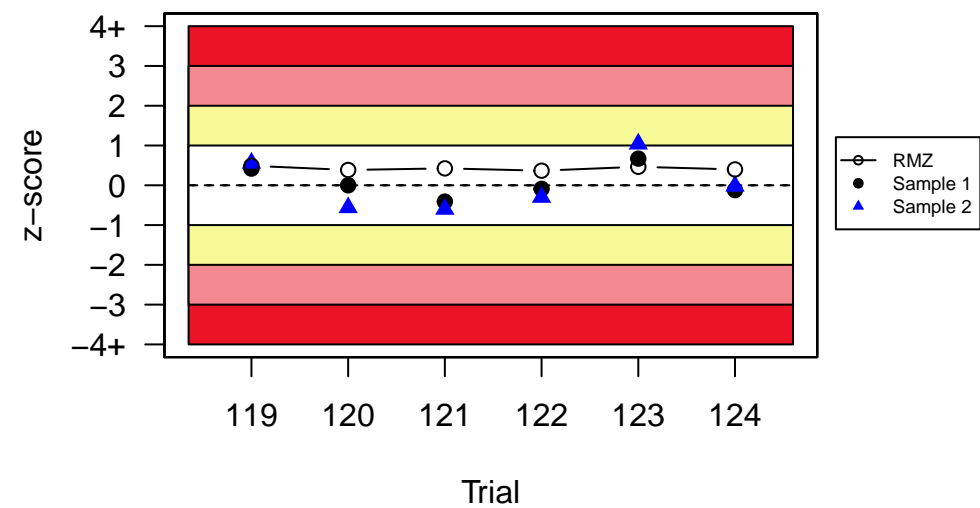
D. Overall deviations for TSH



E. Overall consensus responses for TSH



F. Overall z-score for TSH



Summary

Hormone	Sample	Your result	Med	z-score	%Dev
Total T3	Sample 1	NA	NA	NA	NA
	Sample 2	NA	NA	NA	NA
Total T4	Sample 1	NA	NA	NA	NA
	Sample 2	NA	NA	NA	NA
Free T3	Sample 1	3	3.15	-0.58	-4.76
	Sample 2	5.38	5.58	-0.57	-3.58
Free T4	Sample 1	1.38	1.32	1.20	4.55
	Sample 2	2.27	2.21	0.6	2.71
TSH	Sample 1	1.89	1.900	-0.12	-0.53
	Sample 2	6.31	6.315	-0.02	-0.08

z-score Evaluation

$ z\text{-score} \leq 2.00$	Acceptable
$2.00 < z\text{-score} < 3.00$	Warning Signal
$ z\text{-score} \geq 3.00$	Unacceptable

Abbreviations

N	Number of participants
Med	Median
nIQR	Normalized interquartile range
CV	Coefficient of variation
Ux	Uncertainty
Out	Outlier
RMZ	Running mean z-score
NA	Not available