

Uncertainties of quantitative measurements for the tests carried out at the laboratory. KULDIGA

Tests	Units of measurement	2013			2014			2015			2016			2017			Target CV	Admissible total CV
		Low numbers	Average numbers	High numbers	Low numbers	Average numbers	High numbers	Low numbers	Average numbers	High numbers	Low numbers	Average numbers	High numbers	Low numbers	Average numbers	High numbers		
		CV%	CV%	CV%	CV%	CV%	CV%	CV%	CV%	CV%	CV%	CV%	CV%	CV%	CV%	CV%		
Troponin I	ng/ml	6.9	6.2	8.3	6.91	6.25	8.34	8.78	8.91		10.0	9.37	9.03				10.0	10.0
ALAT	U/L		2.5	2.0		2.74	2.05		2.18	2.17		2.25	1.84		2.44	1.70	1.9	32.1
ASAT	U/L		2.1	1.6		2.17	1.91		1.78	1.28		1.91	1.36		1.82	1.36	1.7	15.2
KFK	U/L		2.4	2.1		2.38	2.00		1.67	1.64		1.54	1.59				2.0	30.3
KFK MB group	U/L		2.3	2.1		1.78	1.69		2.02	1.88		1.71	1.50		2.22	1.74	2.8	31.2
Alkaline phosphate	U/L		4.8	3.8		5.07	3.91		4.78	3.8		4.92	3.69				2.8	11.7
Alpha amylase	U/L		2.5	2.2		2.72	2.38		1.69	1.58		1.59	1.48		1.86	1.5	1.4	14.6
Creatinine	μmol/l		2.9	2.0		2.99	2.17		2.49	1.67		2.81	1.61		2.59	1.81	3.1	8.2
Albumin	g/l		2.7	2.0		3.03	2.07		1.99	1.65		1.98	1.57				2.6	3.9
Albumin in urine	mg/l		3.5	2.6		4.67	2.71		6.75	2.19		8.13	2.41				2.2	46.0
Protein in urine	mg/dl		2.5	1.3		2.61	1.26		2.96	1.27		3.85	1.55				0.9	40.0
Urea	mmol/l		4.2	3.3		3.63	3.05		3.66	2.67		3.67	2.68		5.27	3.26	3.9	15.7
Glucose	mmol/l		2.4	2.2		2.91	2.57		1.65	1.64		3.05	3.26		1.80	1.66	1.4	6.9
Iron	μmol/l		3.2	2.2		3.73	2.93		2.95	1.77		2.59	1.37		2.92	1.59	2.3	30.7
Bilirubin total	μmol/l		3.5	2.9		3.60	2.90		2.8	2.67		2.38	1.94		2.72	2.21	4.7	31.1
Protein total	g/l		2.6	2.4		2.77	2.54		1.7	1.63		2.12	1.97				2.2	3.4
Uric acid	μmol/l		1.7	1.6		1.49	1.68		1.47	1.44		1.54	1.72		1.38	1.49	1.7	8.0
Phosphorus	mmol/l		1.9	1.6		1.90	1.94		1.42	1.31		1.80	1.50				2.5	7.8
Calcium	mmol/l		2.4	2.1		1.99	1.82		1.69	1.59		1.78	1.61				2.9	2.4
ASO	vien.		3.6	3.0		4.04	3.16		3.28	2.87		3.71	3.07		3.28	2.59	5.3	20.0
CRO	mg/dl		2.3	2.4		2.71	2.21		2.39	1.88		1.73	1.63		2.06	1.66	2.9	56.6
RF	U/ml		3.9	2.7		3.77	2.93		4.28	2.91		4.24	2.90		4.21	2.76	4.4	13.5
Glycosylated Hb	%		1.4	1.3		1.92	1.36		2.01	2.01		1.98	1.52		1.38	1.32	1.3	4.3
Cholesterol	mmol/l		2.9	2.7		3.09	2.59		1.81	1.97		2.17	2.12		2.06	1.94	1.9	8.5
Triglycerides	mmol/l		2.4	2.2		2.03	1.77		1.6	1.45		1.92	1.98		1.79	1.55	1.9	27.9
Magnesium	mmol/l																2.9	4.8
Sodium	mmol/l		1.6	1.3		1.56	1.45		1.07	1.02		1.08	1.04		0.98	1.01	0.6	0.9
Potassium	mmol/l		1.5	1.2		1.47	1.25		1.22	1.18		1.19	1.19		1.19	1.11	2.4	5.8
Chlorine	mmol/l		1.6	1.3		1.78	1.48		1.37	1.23		1.46	1.45		1.83	1.38	1.5	1.5

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Erythrocytes	x10 ¹² /l	1.6	1.3	1.3	1.01	0.80	0.85	0.91	0.79	0.71	0.88	0.77	0.75	0.95	0.85	0.75	1.6	4.4
Haemoglobin	g/l	1.3	1.1	1.0	0.83	0.69	0.68	0.91	0.61	0.60	0.78	0.57	0.59	0.82	0.66	0.59	1.4	4.1
Haematocrit	%	1.9	1.4	1.4	1.16	1.02	1.00	1.29	1.14	0.99	1.27	1.11	1.06	1.33	1.23	1.07	1.4	4.1
Avg.Er volume (MCV)	fl	1.2	1.0	0.9	0.66	0.68	0.59	0.79	0.75	0.59	0.81	0.71	0.67	0.8	0.76	0.71	0.7	2.3
Avg.Hb conc.Er (MCH)	pg	1.3	1.1	1.1	1.07	0.84	0.90	1.06	0.88	0.80	1.06	0.77	0.71	1.13	0.92	0.83	0.8	2.7
Avg.Hb conc. (MCHC)	g/l	1.6	1.3	1.2	1.21	1.07	1.10	1.27	1.12	1.00	1.25	1.04	0.99	1.4	1.19	1.05	0.9	2.2
Thrombocytes	x10 ⁹ /l	7.4	3.4	2.9	8.69	2.68	1.64	8.49	2.55	1.54	6.45	2.70	2.36	7.8	2.52	1.48	4.6	13.4
Leukocytes	x10 ⁹ /l	3.2	2.3	2.2	2.55	1.72	1.47	1.96	1.47	1.06	2.15	1.64	1.09	2.26	1.53	1.25	5.5	14.6
EGA	mm/h	9.0	5.1	5.4		4.03			5.15			6.69					10.0	20.0
Prothrombin	%	3.9	3.7		3.39	2.91		3.03	3.28		3.46	3.21					3.5	5.3
APTL	sec		2.2	2.5		2.57	2.94		2.23	2.74		2.44	3.02				2.8	4.5
Fibrinogen	g/l		7.1			4.07			3.72			3.97					5.9	13.6
D-dimers	ng/ml		7.7	5.5		7.31	5.28		8.58	5.68		7.98	5.68				7.9	15
GGT	U/L		2.3	1.9		2.31	1.87		2.07	1.68		2.17	1.90				1.8	22.2
Myoglobin	ng/ml		3.3	2.8		3.81	3.34		2.36	3.35		3.37	2.98		3.96	2.89	5.0	19.6
HDL cholesterol	mmol/l		2.9	2.6		2.57	2.58		2.02	2.44		2.12	2.64		2.73	2.98	1.1	11.1
LDL cholesterol	mmol/l		2.9	2.8		3.59	3.09		2.02	1.93		1.61	1.76		1.90	1.89	1.9	13.6
Bilirubin link	µmol/l		2.5	2.2		2.66	2.25		2.21	2.48		1.86	1.92		1.91	2.14	7.7	44.5

* Permissible uncertainties are indicated in the international interlaboratory comparative testing programmes: Lab quality (Finland), UK NEQAS (Britain), CLIA (US) requirements for analytical quality.