

Clinical Reference Range

Sysmex Corporation

Subject

The following table gives examples of Clinical Reference Range(C.R.R) calculated by the C.R.R method using measurement values collected from 1181 samples (male:387, female:794) at KOCHI MEDICAL SCHOOL HOSPITAL.

Results

(1) CBC 8 parameters

Parameter	SEX	N	Mean	S.D.	CRR		unit
					lower limit	upper limit	
WBC	M	257	5.99	1.41	3.80	8.76	x10 ⁹ /L
	F	731	5.78	1.57	3.39	8.86	
	Total	987	5.84	1.53	3.46	8.84	
RBC	M	244	5.249	0.385	4.54	6	x10 ¹² /L
	F	743	4.588	0.369	3.91	5.31	
	Total	972	4.715	0.461	3.87	5.62	
HGB	M	243	149	9	132	166	g/L
	F	689	127	10	111	147	
	Total	966	132	15	107	161	
HCT	M	247	48.7	2.9	43.2	54.5	%
	F	707	42.9	3.2	36.9	49.1	
	Total	984	44.3	4.4	36.9	52.9	
MCV	M	242	92.9	3.7	86.0	100.1	f L
	F	669	94.5	3.9	87.0	102.2	
	Total	920	94.1	4.0	86.6	102.0	
MCH	M	248	28.3	1.3	25.9	30.8	pg
	F	665	28.0	1.4	25.6	30.8	
	Total	897	28.1	1.3	25.6	30.7	
MCHC	M	252	305	6	293	317	g/L
	F	692	296	17	282	311	
	Total	960	298	9	282	315	
PLT-I	M	254	258	52	173	360	x10 ⁹ /L
	F	718	269	61	171	388	
	Total	971	265	59	172	380	
PLT-O	M	248	243	47	163	336	x10 ⁹ /L
	F	735	254	61	158	374	
	Total	971	250	56	159	359	
PLT-F	M	248	254	49	172	351	x10 ⁹ /L
	F	721	266	61	161	385	
	Total	972	262	59	165	377	

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(2) Analytical parameters

Parameter	SEX	N	Mean	S.D.	CRR		unit
					lower limit	upper limit	
RDW-SD	M	240	41.8	2.8	36.3	47.3	f L
	F	714	44.3	2.9	38.9	50.0	
	Total	964	43.8	3.1	38.0	50.0	
RDW-CV	M	253	12.3	0.6	11.2	13.4	%
	F	656	12.6	0.7	11.2	14.0	
	Total	882	12.4	0.7	11.2	13.7	
PDW	M	243	12.3	1.6	9.5	15.5	f L
	F	696	12.3	1.5	9.7	15.1	
	Total	934	12.3	1.5	9.5	15.2	
MPV	M	245	10.5	0.8	9.2	12.1	f L
	F	717	10.7	0.8	9.2	12.2	
	Total	941	10.6	0.7	9.2	12.1	
P-LCR	M	254	29.5	7.3	17.9	43.7	%
	F	724	30.6	6.7	19.5	43.8	
	Total	974	30.4	6.8	19.4	43.7	
PCT	M	252	0.27	0.05	0.19	0.36	%
	F	723	0.29	0.06	0.19	0.41	
	Total	960	0.28	0.05	0.19	0.39	

(3) WBC Diff parameters

Parameter	SEX	N	Mean	S.D.	CRR		unit
					lower limit	upper limit	
NEUT#	M	248	3.12	0.94	1.65	4.97	x10 ⁹ /L
	F	676	3.04	1.00	1.50	5.00	
	Total	920	3.08	0.97	1.53	4.98	
LYMPH#	M	252	2.08	0.56	1.17	3.17	x10 ⁹ /L
	F	727	1.87	0.51	1.05	2.87	
	Total	988	1.94	0.54	1.13	3.00	
MONO#	M	245	0.43	0.13	0.23	0.68	x10 ⁹ /L
	F	735	0.40	0.12	0.22	0.63	
	Total	968	0.40	0.12	0.22	0.63	
EO#	M	216	0.15	0.08	0.05	0.32	x10 ⁹ /L
	F	632	0.12	0.07	0.03	0.27	
	Total	852	0.13	0.08	0.03	0.29	
BASO#	M	248	0.04	0.02	0.02	0.08	x10 ⁹ /L
	F	685	0.04	0.02	0.02	0.07	
	Total	917	0.04	0.02	0.02	0.07	

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Parameter	SEX	N	Mean	S.D.	CRR		unit
					lower limit	upper limit	
NEUT%	M	246	52.7	7.3	40.1	67.0	%
	F	708	55.2	8.3	40.2	71.4	
	Total	973	54.5	8.5	40.2	71.1	
LYMPH%	M	242	34.9	6.7	23.6	48.0	%
	F	724	33.4	7.8	21.6	49.0	
	Total	956	34.1	7.4	21.9	48.5	
MONO%	M	244	7.2	1.5	4.8	10.2	%
	F	706	6.7	1.5	4.3	9.7	
	Total	966	6.9	1.6	4.4	10.0	
EO%	M	224	2.7	1.4	0.8	5.5	%
	F	662	2.2	1.4	0.6	5.1	
	Total	883	2.3	1.5	0.6	5.2	
BASO%	M	251	0.8	0.3	0.4	1.4	%
	F	735	0.7	0.4	0.2	1.5	
	Total	989	0.7	0.4	0.2	1.4	

Parameter	SEX	N	Mean	S.D.	CRR		unit
					lower limit	upper limit	
IG#	M	227	0.02	0.01	0.01	0.03	x10 ⁹ /L
	F	718	0.02	0.01	0.01	0.04	
	Total	966	0.02	0.01	0.01	0.04	
IG%	M	248	0.36	0.13	0.17	0.61	%
	F	716	0.35	0.13	0.16	0.62	
	Total	964	0.36	0.13	0.16	0.62	

Parameter	SEX	N	Mean	S.D.	CRR		unit
					lower limit	upper limit	
NRBC#	M	249	0.004	0.005	0.000	0.014	x10 ⁹ /L
	F	715	0.005	0.005	0.000	0.015	
	Total	964	0.005	0.005	0.000	0.015	
NRBC%	M	246	0.007	0.010	0.000	0.026	/100WBC
	F	732	0.009	0.010	0.000	0.030	
	Total	984	0.009	0.010	0.000	0.029	

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(4) RET parameters

Parameter	SEX	N	Mean	S.D.	CRR		unit
					lower limit	upper limit	
RET%	M	247	1.50	0.37	0.90	2.22	%
	F	720	1.41	0.41	0.76	2.21	
	Total	977	1.44	0.41	0.82	2.25	
RET#	M	251	78.96	21.54	46.40	121.20	x10 ⁹ /L
	F	714	63.70	19.30	33.10	101.50	
	Total	948	66.68	19.90	36.30	195.70	
IRF	M	251	7.5	2.9	3.3	13.2	f L
	F	696	7.4	3.1	3.1	13.5	
	Total	947	7.4	3.1	3.1	13.4	
LFR	M	246	92.5	2.8	87.2	97.9	%
	F	689	92.8	3.0	87.0	98.6	
	Total	939	92.7	3.0	87.0	98.5	
MFR	M	249	6.7	2.4	3.2	11.3	%
	F	732	6.8	2.9	2.8	12.4	
	Total	961	6.7	2.6	2.8	11.8	
HFR	M	224	0.7	0.4	0.2	1.4	%
	F	631	0.6	1.4	0.1	1.5	
	Total	858	0.6	0.4	0.1	1.5	

(5) Other parameters

Parameter	SEX	N	Mean	S.D.	CRR		unit
					lower limit	upper limit	
RET-He	M	242	33.7	1.3	31.2	36.2	pg
	F	628	32.9	1.4	30.2	35.6	
	Total	894	33.1	1.5	30.3	36.0	
IPF	M	234	2.7	1.4	0.9	5.4	%
	F	676	2.6	1.1	1.0	4.8	
	Total	899	2.6	1.1	1.0	4.8	