Red Cell, White Cell & Platelet Ranges in Infancy & Childhood

AGE	WCC (x109/L)		N (%)		L (%)		M (%)		E (%)		B (%)		N (A) x 109/L		L (A) x 109/L		M (A) x 109/L		E (A) x 109/L		B (A) x 109/L		N RBC
0 - 1 d	9.6	30.4	39	73	13	47	4	15	0	7	0	2	4.4	21.0	2.5	9.1	0.6	4.1	0.0	1.3	0.0	0.4	1 24
1 - 7 d	7.5	21.0	20	73	30	70	4	15	0	7	0	2	1.5	15.3	2.3	14.7	0.3	1.5	0.1	1.3	0.0	0.4	
1 - 2 w	6.8	20.0	15	60	35	75	4	15	0	7	0	2	1.0	12.0	2.4	15.0	0.3	1.5	0.1	1.3	0.0	0.4	
2 w - 3 m	6.4	12.1	11	44	40	80	4	12	1	7	0	2	0.8	4.9	3.8	7.6	0.3	1.2	0.1	0.8	0.0	0.2	
3 - 6 m	5.6	14.1	7	35	53	83	3	14	0	6	0	1	0.5	4.4	3.4	9.8	0.2	1.1	0.0	0.7	0.0	0.1	
6m - 2 y	5.4	13.6	14	55	37	79	2	12	0	6	0	1	1.1	6.0	2.7	8.9	0.2	1.1	0.0	0.6	0.0	0.1	
2 - 4 y	4.9	12.8	24	67	28	64	2	11	0	7	0	1	1.7	6.7	2.0	6.6	0.2	1.0	0.0	0.6	0.0	0.1	
4 - 8 y	4.7	12.3	32	71	20	59	2	10	0	8	0	1	1.8	7.7	1.6	5.1	0.1	1.0	0.0	0.6	0.0	0.1	
8 - 12 y	4.7	12.2	37	70	22	55	2	10	1	8	0	1	1.8	7.6	1.7	4.5	0.2	0.9	0.1	0.6	0.0	0.1	

AGE	Hb (g/L)		RCC (x 10^{12}/L)		Hct (L/L)		MCV (fL)		MCH (pg)		MCHC (g/L)		RDW-SD(fL)		RDW-CV (%)	
0 - 1 d	121	191	3.34	5.40	0.37	0.60	101	117	33.0	38.0	302	341	61.9	81.4	15.5	19.2
1 - 7 d	135	215	3.90	5.60	0.42	0.60	90	115	29.0	38.0	322	358	55.0	81.4	14.0	19.2
1 - 2 w	125	205	3.60	5.50	0.39	0.58	84	110	29.0	38.0	320	353	50.0	70.0	12.0	18.0
2 w - 3 m	102	130	3.38	3.94	0.30	0.38	84	98	29.0	33.8	333	355	39.9	56.6	12.6	16.0
3 - 6 m	100	122	3.39	4.86	0.28	0.36	68	85	22.6	29.7	331	351	34.0	42.4	12.0	14.8
6m - 2 y	104	132	3.88	5.13	0.30	0.38	70	83	23.1	29.4	323	354	34.8	44.6	12.3	17.0
2 - 4 y	107	136	3.86	5.01	0.31	0.38	73	85	24.8	29.9	329	359	34.3	44.1	12.1	15.6
4 - 8 y	110	139	3.96	4.92	0.32	0.39	74	86	25.5	30.6	332	360	34.6	42.7	11.9	14.9
8 - 12 y	113	143	3.98	5.15	0.33	0.41	75	86	25.7	30.6	335	361	35.3	41.0	12.0	14.1

AGE	Plt (x 10^9/L)		PDW (fL)		MPV (fL)	
0 - 1 d	195	434	9.5	14.5	8.9	11.8
1 - 7 d	200	500	9.4	14.5	8.7	11.8
1 - 2 w	250	600	9.4	14.5	8.7	11.8
2 w - 3 m	270	645	9.4	14.0	8.7	11.0
3 - 6 m	296	686	8.5	12.3	8.1	10.5
6m - 2 y	205	553	8.4	13.1	7.9	10.8
2 - 4 y	214	483	8.4	13.1	8.0	10.9
4 - 8 y	205	457	9.0	14.2	8.4	11.5
8 - 12 y	187	415	9.5	14.2	8.6	11.5

Reference Ranges for Neonates and Children

The importance of establishing a reference range for a particular population of subjects cannot be denied. The availability of blood specimens from 'healthy' children led to the decision to use a specific group of subjects to establish reference ranges for neonates and children.

The particular population of children chosen were admitted to the urological ward for the assessment of abnormal renal anatomy. These children were clinically well at the time of admission, had a normal urea and creatinine and a mid- stream specimen of urine devoid of cell, casts and organisms. Venous blood specimens were obtained during anaesthesia so as to avoid the stress of venipuncture affecting the full blood count parameters. Cord blood was also collected from 'post delivery' mothers. These mothers acted as potential cord blood donors for the Australian Cord Blood Bank.

A total of 927 subjects were used for this study. The reference ranges were calculated using the percentile from each respective age group.

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Reticulocyte Ranges

0 Days – 3 Days	3.0 – 7.0 %
3Days – 7Days	1.0 – 3.0 %
7 Days – 1 Year	0.0 – 1.0 %
1 Year – 110 Years	20 – 80 x 10^9/L

References

1. Haematology of Infancy & Childhood 4Th Edition Nathan & Oski.
2. Diagnosis in Paediatric Haematology 1St Edition Harry Smith.