

TITLE: Complete Blood Count, Sysmex XN Hematology Systems

Addendum: Reference Ranges

Identifier: S-LAB-PC-20431a

Revised Date: 09-2019

Gender	Parameter	Units	0-7days	7-14days	14-28days	28-31days	31-61days	61days-6mo	6mo-2yr	2-6yr	6-12yr	12-18yr	Adult
Male	WBC	K/mcL	9.0-30.0	5.0-21.0	5.0-20.0	7.8-15.9	8.1-15.0	6.5-13.3	6.0-13.5	5.1-13.4	4.3-11.0	3.8-9.8	3.4-11.0
Female			9.0-30.0	5.0-21.0	5.0-20.0	8.4-14.4	7.1-14.7	6.0-13.3	6.5-13.0	4.9-13.2	4.3-11.4	4.2-9.4	3.4-11.0
N/S			9.0-30.0	5.0-21.0	5.0-20.0	7.8-14.4	8.1-14.7	6.5-13.3	6.5-13.0	5.1-13.2	4.3-11.0	4.2-9.4	3.4-11.0
Male	RBC	M/mcL	4.10-5.55	4.10-5.55	4.10-5.55	3.16-4.63	3.02-4.22	3.43-4.80	4.03-5.07	3.89-4.97	3.96-5.03	4.03-5.29	4.46-5.85
Female			4.12-5.74	4.12-5.74	4.12-5.74	3.32-4.80	2.93-3.87	3.45-4.75	3.97-5.01	3.84-4.92	3.90-4.96	3.93-4.90	3.98-5.25
N/S			4.12-5.55	4.12-5.55	4.12-5.55	3.32-4.63	3.02-3.87	3.45-4.75	4.03-5.01	3.89-4.92	3.96-4.96	4.03-4.90	4.46-5.25
Male	HGB	g/dL	14.0-19.5	14.0-19.5	12.5-20.5	10.0-15.3	8.9-12.7	9.6-12.4	10.1-12.5	10.2-12.7	10.7-13.4	11.0-14.5	13.0-17.1
Female			14.0-19.5	14.0-19.5	12.5-20.5	10.8-14.6	9.2-11.4	9.9-12.4	10.2-12.7	10.2-12.7	10.6-13.2	10.8-13.3	11.9-15.3
N/S			14.0-19.5	14.0-19.5	12.5-20.5	10.8-14.6	9.2-11.4	9.9-12.4	10.2-12.5	10.2-12.7	10.7-13.2	11.0-13.3	13.0-15.3
Male	HCT	%	42.0-60.0	42.0-64.0	39.0-63.0	30.5-45.0	26.8-37.5	28.6-37.2	30.8-37.8	31.0-37.7	32.2-39.8	33.9-43.5	39.8-51.5
Female			42.0-60.0	42.0-64.0	39.0-63.0	32.0-44.5	27.7-35.1	29.5-37.1	30.9-37.9	31.2-37.8	32.4-39.5	33.4-40.4	37.3-46.7
N/S			42.0-60.0	42.0-64.0	39.0-63.0	32.0-44.5	27.7-35.1	29.5-37.1	30.9-37.8	31.2-37.7	32.4-39.5	33.9-40.4	39.8-46.7
Male	MCV	fL	91-103	91-103	91-103	89-100	84-94	74-88	70-82	71-84	74-86	77-89	81-100
Female			93-106	93-106	93-106	90-103	83-96	75-88	71-83	72-85	76-88	77-91	81-100
N/S			93-103	93-103	93-103	90-100	84-94	75-88	71-82	72-84	76-86	77-89	81-100
Male	MCH	pg	31-36	31-36	31-36	30-34	28-32	24-29	23-27	24-28	25-29	25-30	26-33
Female			31-36	31-36	31-36	30-35	28-33	24-30	23-28	24-29	25-30	25-30	26-33
N/S			31-36	31-36	31-36	30-34	28-32	24-29	23-27	24-28	25-29	25-30	26-33
Male	MCHC	g/dL	33.0-35.7	33.0-35.7	33.0-35.7	32.7-35.1	32.3-34.8	31.9-34.4	31.6-34.4	32.0-34.7	32.2-34.9	31.8-34.8	31.0-36.0
Female			33.4-35.4	33.4-35.4	33.4-35.4	33.2-35.0	32.5-34.9	32.1-34.4	31.9-34.2	31.8-34.6	31.8-34.6	31.5-34.2	31.0-36.0
N/S			33.4-35.4	33.4-35.4	33.4-35.4	33.2-35.0	32.5-34.8	32.1-34.4	31.9-34.2	32.0-34.6	32.2-34.6	31.8-34.2	31.0-36.0
Male	RDW-CV	%	14.8-17.0	14.8-17.0	14.8-17.0	14.3-16.8	13.8-16.1	12.4-15.3	12.9-15.6	12.5-14.9	12.3-14.1	12.4-14.5	11.7-14.9
Female			14.6-17.3	14.6-17.3	14.6-17.3	14.4-16.2	13.6-15.8	12.2-14.3	12.7-15.1	12.4-14.9	12.2-14.4	12.3-14.6	11.7-14.9
N/S			14.8-17.0	14.8-17.0	14.8-17.0	14.4-16.2	13.8-15.8	12.4-14.3	12.9-15.1	12.5-14.9	12.3-14.1	12.4-14.5	11.7-14.9
Male	PLT	K/mcL	150-450	150-450	150-450	248-586	229-562	244-529	206-445	202-403	206-369	175-332	150-425
Female			150-450	150-450	150-450	279-571	331-597	247-580	214-459	189-394	199-367	194-345	150-425
N/S			150-450	150-450	150-450	279-571	331-562	247-529	214-445	202-394	206-367	194-332	150-425

N/S: Not Specified

Addendum: Reference Ranges

Identifier: S-LAB-PC-20431a

Revised Date: 09-2019

Gender	Parameter	Units	0-7days	7-14days	14-28days	28-31days	31-61days	61days-6mo	6mo-2yr	2-6yr	6-12yr	12-18yr	Adult
Male	MPV	fL	10.2-11.9	10.2-11.9	10.2-11.9	10.1-12.1	9.2-10.8	8.9-10.6	8.7-10.5	9.0-10.9	9.2-11.4	9.6-11.8	9.0-12.8
Female			10.4-12.0	10.4-12.0	10.4-12.0	10.0-12.2	9.4-11.1	9.0-10.9	8.8-10.6	8.9-11.0	9.3-11.3	9.6-11.7	9.0-12.8
N/S			10.4-11.9	10.4-11.9	10.4-11.9	10.1-12.1	9.4-10.8	9.0-10.6	8.8-10.5	9.0-10.9	9.3-11.3	9.6-11.7	9.0-12.8
Male	IPF%	%	2.0-6.8	2.0-6.8	2.0-6.8	2.0-6.8	2.0-6.8	2.0-6.8	1.4-3.8	1.1-3.6	1.0-4.9	1.6-6.1	0.9-9.7
Female			1.3-6.8	1.3-6.8	1.3-6.8	1.3-6.8	1.3-6.8	1.3-6.8	1.4-4.5	1.0-3.6	1.0-4.7	1.4-6.4	0.9-9.7
N/S			2.0-6.8	2.0-6.8	2.0-6.8	2.0-6.8	2.0-6.8	2.0-6.8	1.4-3.8	1.1-3.6	1.0-4.7	1.6-6.1	0.9-9.7
Male	IPF#	K/mcL	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	2.8-19.5
Female			N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	2.8-19.5
N/S			N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	2.8-19.5
Male	RET%	%	3.47-5.40	1.06-2.37	1.06-2.37	1.06-2.37	2.12-3.47	1.55-2.70	0.99-1.82	0.82-1.45	0.98-1.94	0.90-1.49	0.9-2.4
Female			3.47-5.40	1.06-2.37	1.06-2.37	1.06-2.37	2.12-3.47	1.55-2.70	0.99-1.82	0.82-1.45	0.98-1.94	0.90-1.49	0.9-2.4
N/S			3.47-5.40	1.06-2.37	1.06-2.37	1.06-2.37	2.12-3.47	1.55-2.70	0.99-1.82	0.82-1.45	0.98-1.94	0.90-1.49	0.9-2.4
Male	RET#	M/mcL	0.1475-0.2164	0.0513-0.1104	0.0513-0.1104	0.0513-0.1104	0.0518-0.0779	0.0482-0.0882	0.0435-0.1111	0.0364-0.0680	0.0424-0.0702	0.0416-0.0651	0.044-0.115
Female			0.1475-0.2164	0.0513-0.1104	0.0513-0.1104	0.0513-0.1104	0.0518-0.0779	0.0482-0.0882	0.0435-0.1111	0.0364-0.0680	0.0424-0.0702	0.0416-0.0651	0.044-0.115
N/S			0.1475-0.2164	0.0513-0.1104	0.0513-0.1104	0.0513-0.1104	0.0518-0.0779	0.0482-0.0882	0.0435-0.1111	0.0364-0.0680	0.0424-0.0702	0.0416-0.0651	0.044-0.115
Male	IRF	%	30.5-35.1	14.5-24.6	14.5-24.6	14.5-24.6	19.1-28.9	13.4-23.3	11.4-25.8	8.4-21.7	8.9-24.1	9.0-18.7	2.7-13.5
Female			30.5-35.1	14.5-24.6	14.5-24.6	14.5-24.6	19.1-28.9	13.4-23.3	11.4-25.8	8.4-21.7	8.9-24.1	9.0-18.7	2.7-13.5
N/S			30.5-35.1	14.5-24.6	14.5-24.6	14.5-24.6	19.1-28.9	13.4-23.3	11.4-25.8	8.4-21.7	8.9-24.1	9.0-18.7	2.7-13.5
Male	RET-He	pg	27.6-38.7	27.6-38.7	27.6-38.7	27.6-38.7	27.6-38.7	27.6-38.7	28.7-35.7	27.7-37.8	32.4-37.6	30.3-40.4	30.1-37.3
Female			29.2-37.5	29.2-37.5	29.2-37.5	29.2-37.5	29.2-37.5	29.2-37.5	30.1-35.7	29.3-37.3	30.4-39.7	29.9-38.4	30.1-37.3
N/S			29.2-37.5	29.2-37.5	29.2-37.5	29.2-37.5	29.2-37.5	29.2-37.5	30.1-35.7	29.3-37.3	32.4-37.6	30.3-38.4	30.1-37.3
Male	NEUT%	%	see below										see below
Female			see below										see below
N/S			see below										see below
Male	LYMPH%	%	33.7-67.6	33.7-67.6	33.7-67.6	33.6-76.8	42.5-85.7	40.7-83.7	26.0-79.6	18.4-66.6	15.5-56.6	16.4-52.7	16-48
Female			24.9-68.5	24.9-68.5	24.9-68.5	31.9-82.7	37.8-86.7	30.4-85.6	27.4-79.9	18.1-68.6	16.7-57.8	18.2-49.8	16-48
N/S			33.7-67.6	33.7-67.6	33.7-67.6	33.6-76.8	42.5-85.7	40.7-83.7	27.4-79.6	18.4-66.6	16.7-56.6	18.2-49.8	16-48

Addendum: Reference Ranges

Identifier: S-LAB-PC-20431a

Revised Date: 09-2019

Gender	Parameter	Units	0-7days	7-14days	14-28days	28-31days	31-61days	61days-6mo	6mo-2yr	2-6yr	6-12yr	12-18yr	Adult
Male	MONO%	%	6.7-19.9	6.7-19.9	6.7-19.9	4.3-18.3	4.4-14.0	3.8-13.4	4.4-13.4	4.2-12.2	4.2-12.3	4.4-12.3	4.9-12.5
Female			5.2-20.6	5.2-20.6	5.2-20.6	5.6-13.8	3.8-15.5	3.8-12.6	3.8-12.8	4.1-11.4	4.2-11.3	4.1-10.9	4.9-12.5
N/S			6.7-19.9	6.7-19.9	6.7-19.9	5.6-13.8	4.4-14.0	3.8-12.6	4.4-12.8	4.2-11.4	4.2-11.3	4.4-10.9	4.9-12.5
Male	EOS%	%	0.3-5.2	0.3-5.2	0.3-5.2	0.2-5.4	0.0-4.5	0.0-4.0	0.0-3.7	0.0-4.1	0.0-4.7	0.0-4.0	0.4-9.5
Female			0.4-4.6	0.4-4.6	0.4-4.6	0.0-5.3	0.0-4.1	0.0-3.6	0.0-3.2	0.0-3.3	0.0-4.0	0.0-3.4	0.4-9.5
N/S			0.4-4.6	0.4-4.6	0.4-4.6	0.2-5.3	0.0-4.1	0.0-3.6	0.0-3.2	0.0-3.3	0.0-4.0	0.0-3.4	0.4-9.5
Male	BASO%	%	0.1-0.8	0.1-0.8	0.1-0.8	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.1-0.6	0.0-0.7	0.0-0.7	0.2-1.6
Female			0.1-0.6	0.1-0.6	0.1-0.6	0.0-0.5	0.0-0.5	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.2-1.6
N/S			0.1-0.6	0.1-0.6	0.1-0.6	0.0-0.5	0.0-0.5	0.0-0.6	0.0-0.6	0.1-0.6	0.0-0.6	0.0-0.6	0.2-1.6
Male	NEUT ABS	K/mcL	see below										see below
Female			see below										see below
N/S			see below										see below
Male	LYMPH ABS	K/mcL	2.07-7.53	2.07-7.53	2.07-7.53	2.11-8.38	2.47-7.95	2.45-8.89	1.56-7.83	1.13-5.52	0.97-3.96	0.97-3.26	0.9-3.1
Female			1.75-8.00	1.75-8.00	1.75-8.00	2.42-8.20	2.29-9.14	2.14-8.99	1.52-8.09	1.25-5.77	1.16-4.28	1.16-3.33	0.9-3.1
N/S			2.07-7.53	2.07-7.53	2.07-7.53	2.42-8.20	2.47-7.95	2.45-8.89	1.56-7.83	1.25-5.52	1.16-3.96	1.16-3.33	0.9-3.1
Male	MONO ABS	K/mcL	0.52-1.77	0.52-1.77	0.52-1.77	0.28-1.38	0.28-1.05	0.28-1.07	0.25-1.15	0.19-0.94	0.19-0.85	0.18-0.78	0.26-0.87
Female			0.57-1.72	0.57-1.72	0.57-1.72	0.42-1.21	0.28-1.21	0.24-1.17	0.26-1.08	0.24-0.92	0.19-0.81	0.19-0.72	0.26-0.87
N/S			0.57-1.72	0.57-1.72	0.57-1.72	0.42-1.21	0.28-1.05	0.28-1.07	0.26-1.08	0.24-0.92	0.19-0.81	0.19-0.72	0.26-0.87
Male	EOS ABS	K/mcL	0.12-0.66	0.12-0.66	0.12-0.66	0.08-0.80	0.05-0.57	0.03-0.61	0.02-0.82	0.03-0.53	0.03-0.52	0.04-0.38	0.03-0.51
Female			0.09-0.64	0.09-0.64	0.09-0.64	0.06-0.75	0.04-0.63	0.02-0.74	0.02-0.58	0.03-0.46	0.03-0.47	0.02-0.32	0.03-0.51
N/S			0.12-0.64	0.12-0.64	0.12-0.64	0.08-0.75	0.05-0.57	0.03-0.61	0.02-0.58	0.03-0.46	0.03-0.47	0.04-0.32	0.03-0.51
Male	BASO ABS	K/mcL	0.02-0.11	0.02-0.11	0.02-0.11	0.01-0.07	0.01-0.07	0.01-0.06	0.01-0.06	0.01-0.06	0.01-0.06	0.01-0.05	0.01-0.09
Female			0.02-0.07	0.02-0.07	0.02-0.07	0.01-0.06	0.01-0.05	0.01-0.07	0.01-0.06	0.01-0.06	0.01-0.05	0.01-0.05	0.01-0.09
N/S			0.02-0.07	0.02-0.07	0.02-0.07	0.01-0.06	0.01-0.05	0.01-0.06	0.01-0.06	0.01-0.06	0.01-0.05	0.01-0.05	0.01-0.09
Male	NRBC%	/100 WBC	0.1-8.3	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0
Female			0.1-8.3	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0
N/S			0.1-8.3	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0.0-0.0	0

Addendum: Reference Ranges

Identifier: S-LAB-PC-20431a

Revised Date: 09-2019

Gender	Parameter	Units	0-7days	7-14days	14-28days	28-31days	31-61days	61days-6mo	6mo-2yr	2-6yr	6-12yr	12-18yr	Adult
<i>(this area left intentionally blank)</i>													
Different Age Grouping for Neuts & Bands													
	Parameter	Units	0-2days	2-28days		28-31days	31-61days	61days-6mo	6mo-2yr	2-6yr	6-12yr	12-18yr	Adult
Male	NEUT%	%	42.0-63.0	21.0-40.0		14.0-54.6	10.2-48.7	10.9-47.8	17.5-69.5	22.4-69.0	28.6-74.5	32.5-74.7	38-74
Female			42.0-63.0	21.0-40.0		10.6-57.3	8.9-68.2	14.1-76.0	16.9-74.0	22.4-69.0	29.8-71.4	39.0-73.6	38-74
N/S			42.0-63.0	21.0-40.0		14.0-54.6	10.2-48.7	14.1-47.8	17.5-69.5	22.4-69.0	29.8-71.4	39.0-73.6	38-74
Male	NEUT#	K/mcL	6.00-26.00	1.00-9.00		1.18-5.45	0.83-4.23	0.97-5.45	1.19-7.21	1.54-7.92	1.63-7.55	1.54-7.04	1.5-7.4
Female			6.00-26.00	1.00-9.00		1.23-4.80	1.00-4.68	1.04-7.20	1.27-7.18	1.60-8.29	1.64-7.87	1.82-7.47	1.5-7.4
N/S			6.00-26.00	1.00-9.00		1.23-4.80	1.00-4.23	1.04-5.45	1.27-7.18	1.60-7.92	1.64-7.55	1.82-7.04	1.5-7.4
Male	BANDS%	%	0-15	0-7		0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6
Female			0-15	0-7		0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6
N/S			0-15	0-7		0-6	0-6	0-6	0-6	0-6	0-6	0-6	0-6
Male	BANDS#	K/mcL	0.0-3.0	0.0-6.0		0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0
Female			0.0-3.0	0.0-6.0		0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0
N/S			0.0-3.0	0.0-6.0		0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0	0.0-6.0
Different Age Grouping for Immature Granulocytes													
	Parameter	Units	0-2days	2-14days	14-30days	30-90days	90days-6mo		6mo-2yr	2-6yr	6-12yr	12-18yr	Adult
Male	IG#	K/mcL	0.00-0.28	0.00-0.27	0.00-0.22	0.00-0.09	0.00-0.06		0.00-0.14	0.00-0.06	0.00-0.04	0.00-0.03	0.00-0.10
Female			0.00-0.28	0.00-0.27	0.00-0.22	0.00-0.09	0.00-0.06		0.00-0.14	0.00-0.06	0.00-0.04	0.00-0.03	0.00-0.10
N/S			0.00-0.28	0.00-0.27	0.00-0.22	0.00-0.09	0.00-0.06		0.00-0.14	0.00-0.06	0.00-0.04	0.00-0.03	0.00-0.10
Male	IG%	%	0.0-1.7	0.0-1.9	0.0-1.3	0.0-0.9	0.0-0.5		0.0-0.9	0.0-0.8	0.0-0.3	0.0-0.3	0.0-1.2
Female			0.0-1.7	0.0-1.9	0.0-1.3	0.0-0.9	0.0-0.5		0.0-0.9	0.0-0.8	0.0-0.3	0.0-0.3	0.0-1.2
N/S			0.0-1.7	0.0-1.9	0.0-1.3	0.0-0.9	0.0-0.5		0.0-0.9	0.0-0.8	0.0-0.3	0.0-0.3	0.0-1.2

N/S: Not Specified