

APPENDIX 1

SCOPE OF LABORATORY ACCREDITATION

Certificate Ref No.: **MICRO024/LA/2017/CERT06**

Microlabs Medical Laboratory

20 Melmac Avenue, Kingston 5

FIELD: Chemistry/Endocrinology

#	SPECIMEN/ SAMPLE	EXAMINATION	METHOD	REFERENCE INTERVAL	UNITS
1	Serum	Albumin	Bromcresol Green, Endpoint	MF * 35-53	G/L
2	Serum	Alkaline Phos	p-NPP, Kinetic	A 0d – 14d 90-273 A 15d-31d 134-518 A 1-10yrs 156-369 A 10-13yrs 141-460 A 20-99yrs 25-123 M 13-15yrs 127-517 M 15-17yrs 89-365 M 17-19yrs 59-164 F 13-15yrs 62-280 F 15-17yrs 54-128 F 17-19yrs 48-95	IU/L
3	Serum	ALT	Modified IFCC, Kinetic	A * 5-36	U/L
4	Serum	Amylase	CNPG3, Kinetic	A * 25-125	U/L
5	Serum	AST	Modified IFCC, Kinetic	A * 5-40	U/L
6	Serum	Bicarbonate	Enzymatic, PEPC and NADH Analog	A * 23-34	mmol/L
7	Serum	Bilirubin Direct	Diazo, Endpoint	A 0-30d 0- 3.42 A >31d 0.0-8.5	µmol/L

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8	Serum	Bilirubin Total	Walters & Gerarde, Endpoint	A 1d-2d 3.4-171	µmol/L
				A 3d-5d 3.4-205	
				A 6d-30d 3.4-171	
				A 1-19yrs 3.4-20.5	
				A 20-99yrs 3.4-20.5	
9	Serum	Calcium Total	Arsenazo III, Endpoint	A 0-1yrs 2.12-2.74	mmol/L
				A 1-19yrs 2.30-2.62	
				A >19yrs 2.13-2.60	
10	Serum	Chloride	ISE	A * 95-107	mmol/L
11	Serum	Cholesterol HDL	COLORIMETRIC	A * >1.03	mmol/L
12	Serum	Cholesterol Total	Enzymatic, Endpoint	A * <5.18	mmol/L
13	Serum	Creatinine	Modified Jaffe, Initial Rate	A 0d-14d 37-93	µmol/L
				A 15d- 31d 27-47	
				A 1m-2m 27-47	
				A 1-3yrs 34-49	
				A 4-7yrs 39-57	
				A 7-12yrs 46-61	
				A * 53-124	
14	Serum	Creatine Kinase	CK-NAC, Kinetic	A * <160	IU/L
15	Serum	GGT	Modified Szasz, Kinetic	A * 12-64	U/L
16	Serum	Glucose	Hexokinase/G6PD, Endpoint	A Fasting * 3.9-8.5	mmol/L
				A 2HRPP * 3.9-7.8	
				A Random * <7.8	
17	Serum	Iron	Ferrozine, Endpoint	M 0-14yrs 16-128	µg/dl
				M 14-19yrs 31-168	
				F 0-14yrs 16-128	
				F 14-19yrs 20-162	
				A 20-99yrs 60-150	
18	Serum	LDH	Modified Wacker/Tris, Kinetic	M * 80-285	U/L
				F * 103-227	

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19	Serum	Phosphorus	Phosphomolybdate, Endpoint	A * 0.81-1.55	mmol/L
20	Serum	Potassium	ISE	A * 3.5-5.3	mmol/L
21	Serum	Sodium	ISE	A * 135-148	mmol/L
22	Serum	Protein Total	Biuret, Endpoint	A * 62-85	mmol/L
23	Serum	Triglycerides	Enzymatic/GPO Trinder, Endpoint	A * <2.83	mmol/L
24	Serum	BUN	Berthelot, Endpoint	M 0d-14d 1.0-8.2 M 15d-31d 1.2-6.0 M 1m-12m 1.2-6.0 F 0d-14d 1.0-8.2 F 15d-31d 1.2-6.0 F 1m-2m 1.2-6.0 A 1-10yrs 3.2-7.9 A >10yrs 2.5-6.4	mmol/L
25	Serum	Uric Acid	Uricase/Trinder, Endpoint	A * 0.12-0.42	mmol/L
26	Serum	Magnesium	Xylidyl Blue, Endpoint	A 0-14d 0.8-1.6 A 15-31d 0.8-1.3 A 1m-12m 0.8-1.3 A 1-19yrs 0.9-1.2 A >19yrs 0.65-1.05	mmol/L
27	Serum	Cortisol	CLIA	A * 5.0-22.0	µg/dL
28	Serum	AFP	CLIA	A * <8.5	ng/mL
29	Serum	Free T4	ELISA	A * 10.23-26.0	pmol/mL
30	Serum	Free T3	ELISA	A Adult 1.4-4.2	pg/mL
31	Serum	Hs-TSH	ELISA	A 1d-4d 1.0-39.0 A 14d-24d 1.7-9.1 A 5m-24m 0.7-6.4 A 20-87 yrs 0.40-4.20	uIU/mL
32	Serum	DHEAS	CLIA	M * 0.06-4.58 F * 0.03-5.88	µg/mL

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33	Serum	Ferritin	ELISA	M * 16-220 F * 10-124	ng/mL
34	Serum	Folate	ELISA	A * >3.0	ng/mL
35	Serum	FSH	CLIA	Women Follicular 3.0-12.0 Midcycle 8.0-22.0 Luteal 2.0-12.0 Postmenopausal 5.0-151.0 Men 1.0-14.0	mIU/mL
36	Serum	LH	CLIA	Women Follicular 0.5-10.5 Midcycle 18.4-61.2 Luteal 0.5-10.5 Postmenopausal 8.2-40.8 Men 0.7-7.4	mIU/mL
37	Serum	Progesterone	CLIA	Prepubertal (1-10 yrs.) 0.07-0.52 Adult Man 0.13-1.22 Adult Woman Follicular 0.15-1.40 Luteal 2.0-25.0 Pregnant woman 1st trimester 7.25-90.0 2nd trimester 19.5-91.0 3rd trimester 49.0-422.0 Postmenopausal 0.0-0.80	ng/mL
38	Serum	Estradiol	CLIA	Female Follicular 9-175 Luteal 44-196 Periovulatory 107-281 Treated 42-289 menopausal Untreated < 20 menopausal Oral contraceptives < 103 Male 4-94	pg/mL

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39	Serum	Prolactin	CLIA	Female Adult 1.2-19.5 Postmenopausal 1.5-18.5 Male * 1.8-17.0	ng/mL
40	Serum	Total PSA	CLIA	M * 0-4.0	ng/mL
41	Serum	Testosterone (Total)	CLIA	M 0 - 11 yrs. 0.1-3.7 M 12 – 65 yrs. 2.5-10.0 F * 0.2-0.95	ng/mL
42	Serum	B12	ELISA	A Newborn 160-300 A <60 yrs. 200-835 A >60 yrs. 110-800	pg/mL
43	Serum	CA 15-3	CLIA	A * ≤37	U/mL
44	Serum	CA 19-9	CLIA	A * ≤40	U/mL
45	Serum	CEA	CLIA	A Non-Smokers * <5.0 A Smokers * <10.0	ng/mL
46	Serum	CA125	CLIA	A * <35	U/mL
47	Serum	Free PSA	CLIA	M * <1.3	ng/mL
48	Serum	Lipoprotein Electrophoresis	ELECTROPHORESIS	Alpha 23.1-54.3 Pre-Beta 10.1-35.9 Beta 30.6-53.9	%
49	Serum	Protein Electrophoresis	ELECTROPHORESIS	Albumin 35.9-49.1 Alpha 1 1.1-3.5 Alpha 2 6.5-11.7 Beta 7.4-12.6 Gamma 5.8-18.9 Total Protein 62.0-85.0	G/L % % % % G/L
50	Serum	Haemoglobin Electrophoresis	ELECTROPHORESIS		N/A

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FIELD: Haematology

#	SPECIMEN/ SAMPLE	EXAMINATION	METHOD	REFERENCE INTERVAL	UNITS
51	Whole Blood	Haemoglobin	FLOW CYTOMETRY	A 15d-31d 13.4-19.8	g/dL
				A 2m-4m 9.4-13.0	
				A 4m-6m 10.3-14.1	
				A 6m-9m 11.1-14.1	
				A 9m-12m 11.4-14.0	
				A 1-2 11.0-14.0	
				A 2-5 11.0-14.0	
				A 5-9 11.5-14.5	
				A 9-12 12.0-15.0	
				M 12-14 12.0-16.0	
				M 15-17 11.7-16.6	
				M 18-44 13.2-17.3	
				M 45-64 13.1-17.2	
				M 65-110 12.6-17.4	
				F 12-14 11.5-15.0	
				F 15-17 11.7-15.3	
F 18-44 11.7-15.5					
F 45-64 11.7-16.0					
F 65-110 11.7-16.1					
52	Whole Blood	Haematocrit	FLOW CYTOMETRY	A 15d-31d 41.0-65.0	%
				A 2m-4m 28.0-42.0	
				A 4m-6m 32.0-44.0	
				A 6m-9m 31.0-41.0	
				A 9m-12m 32.0-40.0	

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				A 1-2 32.0-40.0 A 3-5 32.0-42.0 A 6-8 11.5-14.5 A 9-12 12.0-15.0 M 12-14 35.0-45.0 M 15-17 37.0-48.0 M 18-44 39.0-49.0 M 45-64 39.0-50.0 M 65-110 37.0-51.0 F 12-14 34.0-44.0 F 15-17 34.0-44.0 F 18-44 35.0-45.0 F 45-64 35.0-47.0 F 65-110 35.0-47.0	
53	Whole Blood	MCV	FLOW CYTOMETRY	A 15d-31d 88-140 A 1m-2m 91-112 A 2m-4m 84-106 A 4m-6m 76-97 A 6m-9m 68-85 A 9m-12m 70-85 A 1-2 71-84 A 2-5 73-85 A 5-9 75-87 A 9-12 76-90 M 12-14 77-94 M 15-17 79-95 M 18-44 80-99 M 45-64 81-101 M 65-110 81-103 F 12-14 73-95 F 15-17 78-98 F 18-44 81-100 F 45-64 81-101 F 65-110 81-102	fL

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54	Whole Blood	MCH	FLOW CYTOMETRY	A 15d-31d 30-37 A 1m-2m 29-36 A 2m-4m 27-34 A 4m-6m 25-32 A 6m-9m 24-30 A 9m-12m 25-30 A 1-2 22-30 A 3-5 25-31 A 6-8 25-31 A 9-11 26-32 M 12-14 26-32 M 15-17 27-32 M 18-44 27-34 M 45-64 27-35 M 65-110 27-34 F 12-14 26-32 F 15-17 15-17 F 18-44 18-44 F 45-64 27-34 F 65-110 27-35	pg
55	Whole Blood	MCHC	FLOW CYTOMETRY	A 15d-31d 28-35 A 1m-2m 28-36 A 2m-4m 28-35 A 4m-6m 29-37 A 6m-12m 32-37 A 1-2 32-38 A 3-11 32-37 M 12-14 32-37 M 15-17 32-36 M 18-44 32-37 M 45-64 32-36 M 65-110 31-36 F 12-44 32-36 F 45-64 31-36 F 65-110 32-36	g/dL

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#	SPECIMEN/ SAMPLE	EXAMINATION	METHOD	REFERENCE INTERVAL	UNITS
56	Whole Blood	RBC	FLOW CYTOMETRY	A 15d-31d 3.9-5.9 A 1m-4 m 3.3-5.3 A 4m-6m 3.5-5.1 A 6m-9m 3.9-5.5 A 9m-12m 4.0-5.3 A 1-2 3.8-4.8 A 3-5 3.7-4.9 A 6-8 3.8-4.9 A 9-11 3.9-5.1 M 12-14 4.1-5.2 M 15-17 4.2-5.6 M 18-44 4.3-5.7 M 45-64 4.2-5.6 M 65-110 3.8-5.8 F 12-14 3.8-5.0 F 15-17 3.9-5.1 F 18-44 3.8-5.1 F 45-64 3.8-5.3 F 65-110 3.8-5.2	10 ¹² /L
57	Whole Blood	WBC	FLOW CYTOMETRY	A 6m-12m 6.0-17.5 A 1-2 6.0-17.5 A 2-4 6.0-17.0 A 4-6 5.5-15.5 A 6-8 5.0-14.5 A 8-10 4.5-13.5 A 10-16 4.5-13.5 A 16-21 4.5-13.0 A 21-110 3.6-11.0	10 ⁹ /L
58	Whole Blood	Platelets	FLOW CYTOMETRY	A 0-110 15-400	10 ³ /uL
59	Whole Blood	RDW	FLOW CYTOMETRY	A * 11 - 15	%

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FIELD: Microbiology/Immunology

#	SPECIMEN/ SAMPLE	EXAMINATION	METHOD	REFERENCE INTERVAL	UNITS
60	Serum	HIV	ELISA	N/A	N/A
61	Serum	Hep BsAb	ELISA	N/A	N/A
62	Serum	Hep BsAg	ELISA	N/A	N/A
63	Serum	HAV	ELISA	N/A	N/A
64	Serum	Hep B Core	ELISA	N/A	N/A
65	Serum	HCV Ab	ELISA	N/A	N/A
66	Serum	Anti dsDNA	ELISA	N/A	N/A
67	Serum	Anti RNP/SM	ELISA	N/A	N/A
68	Serum	Anti SM	ELISA	N/A	N/A
69	Serum	Anti JO-1	ELISA	N/A	N/A
70	Serum	Anti SCL-70	ELISA	N/A	N/A
71	Serum	Anti SSA	ELISA	N/A	N/A
72	Serum	Anti SSB	ELISA	N/A	N/A
73	Serum	Antinuclear Ab	ELISA	N/A	N/A
74	Serum	VDRL	FLOCCULATION	N/A	N/A
75	Stool	Parasitology	SEDIMENTATION	N/A	N/A

Abbreviations (if necessary):

M = Male

F = Female

A = Any Gender

* = Any age

N/A = Not Applicable

JANAAC/FM/46-02

Prepared: 2019/04/10

Prepared by: Hepburn Wint