biosytech
MEDICAL LABORATORY

BML437778

Laboratory Investigation Report

Name	:	Ms. AMAL FAWZI	**Ref No.**	:	43557
DOB	:	27/06/1976	**Sample No.**	:	2407447546
Age / Gender	:	48 Y 0 / Female	**Collected**	:	12/07/2024 17:57
Referred by	:	DR ENOMEN	**Registered**	:	12/07/2024 21:20
Centre	:	CITICARE MEDICAL CENTER	**Reported**	:	12/07/2024 22:17

HEMATOLOGY

Test	Result	Flag	Unit	Reference Range	Methodology
COMPLETE BLOOD COUNT (CBC)					
HEMOGLOBIN	12.1		g/dL	12 - 15.5	Spectrophotometry (Oxyhemoglobin)
RBC COUNT	4.3		10^6/µL	3.9 - 5	Electrical Impedance
HEMATOCRIT	36.4		%	35 - 45	Calculation
MCV	84.3		fL	82 - 98	Calculation
MCH	28.1		pg	27 - 32	Calculation
MCHC	33.3		g/dL	32 - 37	Calculation
RDW	15		%	11.9 - 15.5	Calculation
RDW-SD	44.2		fL		Calculation
MPV	8.5		fL	7.6 - 10.8	Calculation
PLATELET COUNT	375		10^3/uL	150 - 450	Electrical Impedance
PCT	0.3		%	0.01 - 9.99	Calculation
PDW	16.5		Not Applicable	0.1 - 99.9	Calculation
NUCLEATED RBC (NRBC)^	0.1		/100 WBC		Flow Cytometry
ABSOLUTE NRBC COUNT^	0.01		10^3/uL		Calculation
EARLY GRANULOCYTE COUNT (EGC)^	0.4		%		Flow Cytometry
ABSOLUTE EGC^	0.0		10^3/uL		Calculation
WBC COUNT	4.5		10^3/µL	4 - 11	Electrical Impedance
DIFFERENTIAL COUNT (DC)					
NEUTROPHILS	53		%	40 - 75	Flow Cytometry
LYMPHOCYTES	39		%	30 - 60	Flow Cytometry
EOSINOPHILS	1		%	0 - 6	Flow Cytometry
MONOCYTES	6		%	1 - 6	Flow Cytometry
BASOPHILS	1		%	0 - 1	Flow Cytometry
ABSOLUTE COUNT					
ABSOLUTE NEUTROPHIL COUNT	2.2		10^3/uL	1.6 - 8.25	Calculation
ABSOLUTE LYMPHOCYTE COUNT	1.8		10^3/uL	1.2 - 6.6	Calculation
ABSOLUTE MONOCYTE COUNT	0.4		10^3/uL	0.04 - 0.66	Calculation
ABSOLUTE EOSINOPHIL COUNT	0.0		10^3/uL	0 - 0.66	Calculation
ABSOLUTE BASOPHIL COUNT	0.0		10^3/uL	0 - 0.11	Calculation

Dr. Adley Mark Fernandes
M.D (Pathology)
Pathologist

Dr. Vyoma V Shah
M.D (Pathology)
Clinical Pathologist

Reena Babu
Laboratory Technologist
Printed on: 13/07/2024 12:55

This is an electronically authenticated report

Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

P.O Box: 49527 Dubai, UAE Tel: +971 4 398 8567 reports@biosytech.ae www.biosytech.com

biosytech
MEDICAL LABORATORY

BML437778

Laboratory Investigation Report

Name	:	Ms. AMAL FAWZI	**Ref No.**	:	43557
DOB	:	27/06/1976	**Sample No.**	:	2407447546
Age / Gender	:	48 Y 0 / Female	**Collected**	:	12/07/2024 17:57
Referred by	:	DR ENOMEN	**Registered**	:	12/07/2024 21:20
Centre	:	CITICARE MEDICAL CENTER	**Reported**	:	12/07/2024 22:17

HEMATOLOGY

Test	Result	Flag	Unit	Reference Range	Methodology
COMPLETE BLOOD COUNT (CBC)					

INTERPRETATION NOTES : Please note update on CBC report format and changes in reference ranges.

Sample Type : *EDTA Whole Blood*

End of Report

Dr. Adley Mark Fernandes
M.D (Pathology)
Pathologist

Dr. Vyoma V Shah
M.D (Pathology)
Clinical Pathologist

Reena Babu
Laboratory Technologist

This is an electronically authenticated report

Printed on: 13/07/2024 12:55

Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

P.O Box: 49527 Dubai, UAE Tel: +971 4 398 8567 reports@biosytech.ae www.biosytech.com

Laboratory Investigation Report

Name	:	Ms. AMAL FAWZI	**Ref No.**	:	43557
DOB	:	27/06/1976	**Sample No.**	:	2407447546
Age / Gender	:	48 Y 0 / Female	**Collected**	:	12/07/2024 17:57
Referred by	:	DR ENOMEN	**Registered**	:	12/07/2024 21:20
Centre	:	CITICARE MEDICAL CENTER	**Reported**	:	12/07/2024 22:42

ENDOCRINOLOGY

Test	Result	Flag	Unit	Reference Range	Methodology
ESTRADIOL (E2)	112		pg/mL	Follicular Phase: 19.5 - 144.2 Mid Cycle Peak: 63.9 - 356.7 Luteal Phase: 55.8 - 214.2 Post Menopausal: 0.00 - 32.2	ECLIA

INTERPRETATION NOTES :

Table 1, Females		
Tanner Stage #	**Mean Age**	**Reference Range**
Stage I (>14 days and prepubertal)	7.1 years	Undetectable - 20 pg/mL
Stage II	10.5 years	Undetectable - 24 pg/mL
Stage III	11.6 years	Undetectable - 60 pg/mL
Stage IV	12.3 years	15 - 85 pg/mL
Stage V	14.5 years	15 - 350 pg/mL **

Table 2, Males		
Tanner Stage #	**Mean Age**	**Reference Range**
Stage I (>14 days and prepubertal)	7.1 years	Undetectable - 13pg/mL
Stage II	12.1 years	Undetectable - 16 pg/mL
Stage III	13.6 years	Undetectable - 26 pg/mL
Stage IV	15.1 years	Undetectable - 38 pg/mL
Stage V	18 years	10 - 40 pg/mL

Increased level is seen in early puberty, tumors in the ovaries or testes, gynecomastia, hyperthyroidism, cirrhosis of liver.
Decreased level is seen in menopause, Turner syndrome, ovarian failure, polycystic ovarian syndrome (PCOS), depleted estrogen production, which can be caused by low body fat, hypopituitarism, hypogonadism.

FOLLICLE STIMULATING HORMONE (FSH)	4.5		mIU/mL	Follicular phase: 2.5 - 10.2 Midcycle Peak: 3.4 - 33.4 Luteal Phase: 1.5 - 9.1 Postmenopausal: 23 - 116.3 Pregnant: < 0.3	ECLIA

INTERPRETATION NOTES :

Increased level of FSH and LH are found in hypogonadism, anorchia, gonadal failure, complete testicular feminization syndrome, menopause, Klinefelter syndrome, alcoholism, and castration.
Decreased level is seen in pituitary or hypothalamic failure

Dr. Adley Mark Fernandes
M.D (Pathology)
Pathologist

Dr. Vyoma V Shah
M.D (Pathology)
Clinical Pathologist

HARSHAD MANIKANDAN
Laboratory Technician

This is an electronically authenticated report

Printed on: 13/07/2024 12:55

Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

P.O Box: 49527 Dubai, UAE Tel: +971 4 398 8567 reports@biosytech.ae www.biosytech.com

Laboratory Investigation Report

Name	:	Ms. AMAL FAWZI	**Ref No.**	:	43557
DOB	:	27/06/1976	**Sample No.**	:	2407447546
Age / Gender	:	48 Y 0 / Female	**Collected**	:	12/07/2024 17:57
Referred by	:	DR ENOMEN	**Registered**	:	12/07/2024 21:20
Centre	:	CITICARE MEDICAL CENTER	**Reported**	:	12/07/2024 22:42

ENDOCRINOLOGY

Test	Result	Flag	Unit	Reference Range	Methodology
LUTEINISING HORMONE (LH)	3.7		IU/L	Follicular Phase: 1.9 - 12.5 Mid Cycle Peak : 8.7 - 76.3 Luteal phase : 0.5 - 16.9 Post Menopausal : 15.9 - 54.0 Pregnant: < 0.1 - 1.5 Contraceptives: 0.7 - 5.6	ECLIA
PROGESTERONE	0.21		ng/mL	Postmenopause :0.108-0.151 1st trimester : 39.6-48.9 2nd trimester : 78.9-99.1 3rd trimester : 191-260 Follicular phase 0.183-0.282 Ovulation:1.94-6.09 Luteal phase: 13.5-20.3	ECLIA

INTERPRETATION NOTES :

Progesterone is increased in congenital adrenal hyperplasia , ovarian cancer, adrenal cancer.
Progesterone is decreased in primary or secondary hypogonadism and short luteal phase syndrome, lack of periods, ectopic pregnancy, miscarriage and fetal death.

Test	Result	Flag	Unit	Reference Range	Methodology
PROLACTIN	544		mIU/L	Refer to Interpretation.	ECLIA

INTERPRETATION NOTES :

FEMALE REFERENCE RANGE (Please note change):

Stages	Reference Range (mIU/L)	
Tanner Stage I:	76.596 - 255.319	Source: Quest Diagnostics
Tanner Stage II-III:	55.319 - 382.979	Source: Quest Diagnostics
Tanner Stage IV-V:	68.085 - 425.532	Source: Quest Diagnostics
Non Pregnant:	102-496	Source: Roche Cobas Elecsys IFU
Pregnant:	212.766 - 4446.808	Source: Quest Diagnostics
Postmenopausal:	42.553 - 425.532	Source: Quest Diagnostics

High prolactin level is seen in pituitary gland tumour(prolactinoma), diseases of the hypothalamus , pregnancy, PCOS , liver disease (cirrhosis), kidney disease, anorexia nervosa hypothyroidism. Drugs that can cause an elevated prolactin include estrogen, tricyclic antidepressants, risperidone, opiates, amphetamines.
Levels of prolactin that are below normal are not usually treated but may be indicative of a general decrease in pituitary hormones caused by a

Dr. Adley Mark Fernandes
M.D (Pathology)
Pathologist

Dr. Vyoma V Shah
M.D (Pathology)
Clinical Pathologist

HARSHAD MANIKANDAN
Laboratory Technician
Printed on: 13/07/2024 12:55

This is an electronically authenticated report

Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

P.O Box: 49527 Dubai, UAE Tel: +971 4 398 8567 reports@biosytech.ae www.biosytech.com

Name	:	Ms. AMAL FAWZI	**Ref No.**	:	43557
DOB	:	27/06/1976	**Sample No.**	:	2407447546
Age / Gender	:	48 Y 0 / Female	**Collected**	:	12/07/2024 17:57
Referred by	:	DR ENOMEN	**Registered**	:	12/07/2024 21:20
Centre	:	CITICARE MEDICAL CENTER	**Reported**	:	12/07/2024 22:42

ENDOCRINOLOGY

Test	Result	Flag	Unit	Reference Range	Methodology

pituitary disorder such as hypopituitarism. drugs such as dopamine, levodopa and ergot alkaloid derivatives decrease prolactin level.

TESTOSTERONE (TOTAL)	0.73		nmol/L	0.29 - 1.67 Please note change in method and reference range. Source: Roche IFU.	ECLIA

INTERPRETATION NOTES :

Tanner Stage Interpretation Table (Source:Roche IFU):

Tanner Stage	Reference Ranges (Male)	Reference Ranges (Female)
Tanner Stage I (> 14 days):	Undetectable - 0.087	Undetectable - 0.21
Tanner Stage II (11.5 years):	Undetectable - 14.99	Undetectable - 0.36
Tanner Stage III (13.6 years):	2.25 - 27.00	Undetectable - 0.82
Tanner Stage IV (15.1 years):	6.24 - 26.45	Undetectable - 0.92
Tanner Stage V (18.0 years):	6.51 - 30.50	0.16 - 1.32

High amounts of testosterone in the body can lead to a lower sperm count.

Low testosterone concentrations can be caused by testicular failure (primary hypogonadism) or inadequate stimulation by pituitary gonadotropins (secondary hypogonadism).

Dr. Adley Mark Fernandes
M.D (Pathology)
Pathologist

Dr. Vyoma V Shah
M.D (Pathology)
Clinical Pathologist

HARSHAD MANIKANDAN
Laboratory Technician

This is an electronically authenticated report

Printed on: 13/07/2024 12:55

Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.

CAP ACCREDITED COLLEGE of AMERICAN PATHOLOGISTS

P.O Box: 49527 Dubai, UAE Tel: +971 4 398 8567 reports@biosytech.ae www.biosytech.com

biosytech
MEDICAL LABORATORY

BML437778

Laboratory Investigation Report

Name	:	Ms. AMAL FAWZI	**Ref No.**	:	43557
DOB	:	27/06/1976	**Sample No.**	:	2407447546
Age / Gender	:	48 Y 0 / Female	**Collected**	:	12/07/2024 17:57
Referred by	:	DR ENOMEN	**Registered**	:	12/07/2024 21:20
Centre	:	CITICARE MEDICAL CENTER	**Reported**	:	12/07/2024 22:42

ENDOCRINOLOGY

Test	Result	Flag	Unit	Reference Range	Methodology
THYROID FUNCTION TEST (FT3+FT4+TSH)					
TRIIODOTHYRONINE, FREE (FT3)	4.9		pmol/L	3.71 – 6.70 Reference Range for Pregnant: First Trimester: 3.78 – 5.97 Second Trimester: 3.21 – 5.45 Third Trimester: 3.09 – 5.03 Please note change in method and reference range. Source: Roche IFU.	ECLIA
THYROXINE, FREE (FT4)	15.6		pmol/L	12.3 – 20.2 Reference Range for Pregnant: First Trimester: 12.1 – 19.6 Second Trimester: 9.63 – 17.0 Third Trimester: 8.39 – 15.6 Please note change in method and reference range. Source: Roche IFU.	ECLIA
THYROID STIMULATING HORMONE (TSH)	1.34		uIU/mL	0.27 - 4.2 Reference Range for Pregnant: First Trimester: 0.24 – 2.99 Second Trimester: 0.46 – 2.95 Third Trimester: 0.43 – 2.78	ECLIA

Sample Type : Serum

End of Report

Dr. Adley Mark Fernandes
M.D (Pathology)
Pathologist

Dr. Vyoma V Shah
M.D (Pathology)
Clinical Pathologist

HARSHAD MANIKANDAN
Laboratory Technician
Printed on: 13/07/2024 12:55

This is an electronically authenticated report

Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

P.O Box: 49527 Dubai, UAE Tel: +971 4 398 8567 reports@biosytech.ae www.biosytech.com