



# THE NAIROBI HOSPITAL

P.O.Box 30026, G.P.O 00100, Nairobi, Kenya Tel: +254(020)2845000 / 2846000

E-mail : [hosp@nbihosp.org](mailto:hosp@nbihosp.org) Website : [www.thenairobihosp.org](http://www.thenairobihosp.org)

## BIOCHEMISTRY

Encounter Number: 142406224002

### THE NAIROBI HOSPITAL

#### Lab Report #:

Voucher No: ACOPB06280657/24  
Patient: EDWIN NJOKA NDUNYU  
Age: 33 years  
Gender: Male  
Sample No: AN03609275 (3609275)  
Sample: Plasma

Facility: ANDERSON

Ward: OPD

UHID: 1000714758

Prof/Dr: KILLINGO D. M.

Date Collected: 22-Jun-2024 10:20

Date Received: 22-Jun-2024 10:28

Date Reported: 22-Jun-2024 13:11

Test	Result	Units	Reference Range	Status
Random Blood Sugar (RBS)	5.0	mmol/L	3.9 - 7.8	N

#### Note:

##### Interpretive comment

In a patient with classic symptoms of hyperglycemia or hyperglycemic crisis, a random plasma

Glucose  $\geq 11.1$  mmol/L is diagnostic of diabetes mellitus

##### References

- American Diabetes Association. Standards of medical care in diabetes-2017
- American Diabetes Association. Defining and reporting hypoglycemia in diabetes: a report from the American Diabetes Association Workgroup on Hypoglycemia. Diabetes care. 2005

Uric Acid	480.0	$\mu\text{mol/L}$	210 - 420	H
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#### Note:

Uric acid measurements are useful in aiding the diagnosis and treatment of gout, renal failure, and a variety of other disorders including leukemia, psoriasis, starvation, and other wasting conditions. Patients receiving cytotoxic drugs may be monitored with uric acid measurements. An increased uric acid level does not necessarily translate to a diagnosis of gout. Only a minority of individuals with hyperuricemia develop gout. The therapeutic goal for uric acid-lowering therapy is to promote crystal dissolution and prevent crystal formation. This is achieved by maintaining a uric acid level  $< 357 \mu\text{mol/L}$ .

##### Reference

2012 American College of Rheumatology guidelines for management of gout. Part 1: systematic nonpharmacologic and pharmacologic therapeutic approaches to hyperuricemia. Arthritis care & research. 2012 Oct.

#### Liver Profile

Total Bilirubin	5.8	$\mu\text{mol/L}$	3.4 - 20.5	N
Direct Bilirubin	2.4	$\mu\text{mol/L}$	0 - 8.6	N
Alanine Transaminase	23.0	U/L	0 - 45	N
Aspartate Transferase	35.0	U/L	5 - 34	H
Alkaline Phosphatase	89.0	U/L	53 - 128	N
Gamma-Glutamyl Transferase	34.0	U/L	12 - 64	N
Total Protein	79	g/L	64 - 83	N
Albumin	48.8	g/L	34 - 54	N
Globulin	30	g/L	12 - 39	N

#### Lipid Profile

Cholesterol	5.1	mmol/L	2.9 - 5.2	N
Cholesterol/HDL Ratio	3.5			
non-HDL Cholesterol	3.7	mmol/L	0.96 - 4.3	N
LDL Cholesterol	3.27	mmol/L	0.9 - 3.39	N
HDL Cholesterol	1.45	mmol/L	0.9 - 1.94	N
Triglycerides (TGs)	1.06	mmol/L	0.45 - 1.80	N

Result Indicator Legend: L = Low N = Normal H = High CL = Critical Low CH = Critical High



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## BIOCHEMISTRY

Encounter Number: 142406224002

### THE NAIROBI HOSPITAL

#### Lab Report #:

Voucher No: ACOPB06280657/24  
Patient: EDWIN NJOKA NDUNYU  
Age: 33 years  
Gender: Male  
Sample No: AN03609275 (3609275)  
Sample: Plasma

Facility: ANDERSON  
Ward: OPD  
UHID: 1000714758  
Prof/Dr: KILLINGO D. M.  
Date Collected: 22-Jun-2024 10:20  
Date Received: 22-Jun-2024 10:28  
Date Reported: 22-Jun-2024 13:11

Test	Result	Units	Reference Range	Status
<b>Test</b>	<b>Desirable</b>	<b>Near optimal</b>	<b>Borderline high</b>	<b>High/ Abnormal</b>
Cholesterol (mmol/l)	<5.2		5.2 - 6.2	>6.2
LDL-Cholesterol (mmol/l)	<2.6	2.6-3.3	3.4-4.1	>4.1
HDL-Cholesterol (mmol/l)	≥1.6			<1.0
Triglycerides (mmol/l)	<1.7		1.7-2.3	>2.3
Non-HDL Cholesterol(mmol/L)	<3.37			

LIPID PROFILE TARGET VALUES

Cut-offs for initiation of treatment and goals of therapy should be guided by the risk factors in the patient.

#### Reference

National Cholesterol Education Program (US). Expert Panel on Detection, Treatment of High Blood Cholesterol in Adults. Third report of the National Cholesterol Education Program (NCEP) Expert Panel on detection, evaluation, and treatment of high blood cholesterol in adults.

#### U/E/C

Sodium	133	mmol/L	135 - 145	L
Potassium	3.8	mmol/L	3.5 - 5.1	N
Chloride	100	mmol/L	98 - 118	N
Urea	6.5	mmol/L	2.5 - 6.4	H
Creatinine	98.9	μmol/L	27 - 119	N
eGFR	≥90	mL/min/1.73 m <sup>2</sup>		

The eGFR calculation is based on CKD-EPI equation and is applicable for persons ≥ 18 years only. Take note of the change in formula.

GFR Categories in CKD

GFR Category	GFR (ml/min/1.73m <sup>2</sup> )	Terms
G1	>90	Normal or high
G2	60 - 89	Mildly decreased *
G3a	45 - 59	Mildly to moderately decreased
G3b	30 - 44	Moderately to severely decreased
G4	15 - 29	Severely decreased
G5	0 - 15	Kidney failure

Abbreviations: CKD, chronic kidney disease; GFR, glomerular filtration rate. \*Relative to young adult level. In the absence of evidence of kidney damage, neither GFR category G1 nor G2 fulfill the criteria for CKD. Ref Akbari et al .Am J Kidney Dis. 2015;65(2):177-205



Reviewed by: Catherine Gichuki  
Lab Technologist

Date: 6/22/2024 1:11:13PM

Approved by: Dr. Rahul R Zode  
MBBS MD Pathology  
Chief Pathologist

Result Indicator Legend: L = Low N = Normal H = High CL = Critical Low CH = Critical High



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## BIOCHEMISTRY

Encounter Number: 142406224002

### THE NAIROBI HOSPITAL

**Lab Report #:** 5432846  
**Voucher No:** ACOPB06280657/24  
**Patient:** EDWIN NJOKA NDUNYU  
**Age:** 33 years  
**Gender:** Male  
**Sample No:** AN03609276 (3609276)  
**Sample:** Whole blood

**Facility:** ANDERSON  
**Ward:** OPD  
**UHID:** 1000714758  
**Prof/Dr:** KILLINGO D. M.  
**Date Collected:** 22-Jun-2024 10:20  
**Date Received:** 22-Jun-2024 10:28  
**Date Reported:** 22-Jun-2024 10:40

Test	Result	Units	Reference Range	Status
Glyco HB/HbA1c	5.8	%	4 - 6	N
Estimated Average Glucose	6.6	mmol/L		

#### Note:

#### Interpretive comment

#### Glycemic targets in adults with Diabetes mellitus

- A HbA1c target of < 7% in most non-pregnant adults is reasonable
- A more stringent target of HbA1c <6.5% may be utilized for selected patients in whom this can be achieved without significant hypoglycemia or other adverse effects of treatment
- A less stringent target of HbA1c <8% may be appropriate for patients with a history of severe hypoglycemia, limited life expectancy, advanced microvascular/ macrovascular complications, extensive comorbid conditions, or long-standing diabetes in whom control is difficult to achieve.
- HbA1c testing should be done at least twice a year for those with stable glycemic control. Testing should be done quarterly for those patients whose therapy has changed or who are not meeting glycemic targets

#### Glycemic target in pediatric patients with Diabetes mellitus

A target of HbA1c <7.5% is recommended across all pediatric age-groups.

#### HbA1c for Diagnosis of Diabetes mellitus

- HbA1c  $\geq$  6.5% is diagnostic for Diabetes mellitus (*In the absence of unequivocal hyperglycemia, results should be confirmed by repeat testing*)
- HbA1c 5.7-6.4% is associated with increased risk of Diabetes mellitus

#### Reference

American Diabetes Association. Standards of medical care in diabetes-2017

**Estimated Average Glucose:** The estimated Average Glucose is applicable to diabetic patients in stable control and without disorders which affect erythrocyte lifespan. The eAG formula is not applicable if HbA1c is above 14.0 %. The eAG calculation is referenced from Diabetes Care 31:1-6, 2008.





Reviewed by: Peter Gachoki Ngai  
Lab Technologist

Date: 6/22/2024 10:40:10AM



Approved by: Dr. Rahul R Zode  
MBBS MD Pathology  
Chief Pathologist

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