

GOODHEW, JAKE  
79 BALONNE ST, NARRABRI. 2390  
Phone: 0473925904  
Birthdate: 10/09/1998 Sex: M Medicare Number: 2457747468  
Your Reference: 00072079 Lab Reference: 23-24481926-FBE-0  
Laboratory: Laverty Pathology  
Addressee: DR JULIAN WHITE Referred by: DR JULIAN WHITE

Name of Test: HAEMATOLOGY (FBE-0)  
Requested: 04/10/2023 Collected: 04/10/2023 Reported: 04/10/2023  
22:48

HAEMATOLOGY

Date Collected 04 Oct 23  
Time Collected 12:36  
Specimen Type: EDTA

Hb	172 g/L	(130-180)	WBC	5.5 x10 <sup>9</sup> /L	(4.0-11.0)
RCC	5.7 x10 <sup>12</sup> /L	(4.5-6.5)	Neut	3.5 x10 <sup>9</sup> /L	(2.0-7.5)
Hct	0.51	(0.40-0.54)	Lymp	1.6 x10 <sup>9</sup> /L	(1.0-4.0)
MCV	89 fL	(79-99)	Mono	0.3 x10 <sup>9</sup> /L	(0.2-1.0)
MCH	30 pg	(27-34)	Eos	0.1 x10 <sup>9</sup> /L	(< 0.7)
MCHC	338 g/L	(320-360)	Baso	0.0 x10 <sup>9</sup> /L	(< 0.2)
RDW	12.3 %	(10.0-17.0)			
Plat	241 x10 <sup>9</sup> /L	(150-400)			

HAEMATOLOGY: FBC parameters are within reference range.

Requested Tests : VBF\*, TFT\*, MBA\*, LIP\*, FE\*, FBE, ALC\*

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Your Reference: 00072079 Lab Reference: 23-24481926-TFT-0  
Laboratory: Lavery Pathology  
Addressee: DR JULIAN WHITE Referred by: DR JULIAN WHITE

Name of Test: THYROID FUNCTION TEST (TFT-0)  
Requested: 04/10/2023 Collected: 04/10/2023 Reported: 04/10/2023  
23:15

THYROID PROFILE

Specimen Type: Serum  
TSH

1.5 mIU/L (0.5-4.0)

Result(s) consistent with euthyroidism.

Requested Tests : VBF\*, TFT, MBA\*, LIP\*, FE\*, FBE, A1C\*

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 Your Reference: 00072079 Lab Reference: 23-24481926-MBA-0  
 Laboratory: Laverty Pathology  
 Addressee: DR JULIAN WHITE Referred by: DR JULIAN WHITE

Name of Test: SERUM CHEMISTRY (MBA-0)  
 Requested: 04/10/2023 Collected: 04/10/2023 Reported: 04/10/2023  
 23:19

<u>SERUM CHEMISTRY</u>			
Specimen Type: Serum			
Haemolysis	Nil		
Icterus	Nil		
Lipaemia	Nil		
Sodium	136	mmol/L	(135-145)
Potassium	4.4	mmol/L	(3.6-5.4)
Chloride	97	mmol/L	(95-110)
Bicarbonate	21	mmol/L	(22-32)
Anion Gap	22	mmol/L	(10-20)
Urea	4.1	mmol/L	(2.5-7.5)
Creatinine	75	umol/L	(60-110)
eGFR	> 90	mL/min/1.73m <sup>2</sup>	
Bilirubin	15	umol/L	(< 20)
AST	36	U/L	(< 35)
ALT	33	U/L	(< 40)
GGT	31	U/L	(< 40)
Alkaline Phosphatase	126	U/L	(35-110)
Protein	84	g/L	(60-82)
Albumin	51	g/L	(38-50)
Globulin	33	g/L	(20-38)

eGFR  $\geq 90$  mL/min/1.73m<sup>2</sup> usually indicates normal kidney function but does not exclude patients with early kidney damage (those with albuminuria, haematuria or abnormal kidney imaging).

Requested Tests : VBF\*, TFT, MBA, LIP, FE, FBE, A1C\*

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**Your Reference:** 00072079 **Lab Reference:** 23-24481926-FE-0  
**Laboratory:** Lavery Pathology  
**Addressee:** DR JULIAN WHITE **Referred by:** DR JULIAN WHITE

**Name of Test:** IRON STUDIES (FE-0)  
**Requested:** 04/10/2023 **Collected:** 04/10/2023 **Reported:** 04/10/2023  
23:19

	<u>IRON STUDIES</u>		
Specimen Type: Serum			
Serum Iron	17	umol/L	(10-30)
Transferrin	33	umol/L	(27-46)
Transferrin Saturation	26	%	(13-45)
Serum Ferritin	77	ug/L	(30-300)

Normal iron studies.

Requested Tests : VBF\*, TFT, MBA, LIP, FE, FBE, A1C\*

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Your Reference: 00072079 Lab Reference: 23-24481926-LIP-0  
Laboratory: Lavery Pathology  
Addressee: DR JULIAN WHITE Referred by: DR JULIAN WHITE

Name of Test: LIPID STUDIES (LIP-0)  
Requested: 04/10/2023 Collected: 04/10/2023 Reported: 04/10/2023  
23:19

#### LIPID STUDIES

Specimen Type: Serum

Reference intervals are included for reference only, and interpretation / treatment goals should be guided by patient-specific cardiovascular risk assessment (see Australian Cardiovascular Risk Charts. Alternatively, the web-site [www.cvdcheck.org.au](http://www.cvdcheck.org.au) can be accessed in order to complete a risk assessment for individual patients.)

Haemolysis Nil  
Icterus Nil  
Lipaemia Nil

Fasting status Random  
Total Cholesterol **5.3** mmol/L (3.0-5.2)

NVDPA TARGET LIPID RANGES (MMOL/L) FOR PATIENTS AT HIGH / MODERATE RISK OF CARDIOVASCULAR DISEASE:

TOTAL CHOLESTEROL	<4.0
TRIGS (FASTING)	<2.0
HDL-C	>= 1.0
LDL-C	<2.0
NON HDL-C	<2.5

Requested Tests : VBF\*, TFT, MBA, LIP, FE, FBE, A1C\*

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Your Reference: 00072079 Lab Reference: 23-24481926-A1C-0  
Laboratory: Laverty Pathology  
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Name of Test: GLYCATED HAEMOGLOBIN (A1C-0)  
Requested: 04/10/2023 Collected: 04/10/2023 Reported: 04/10/2023  
23:41

Specimen Type: EDTA GLYCATED HAEMOGLOBIN (HbA1c)  
HbA1c- NGSP 5.2 % (4.0-6.0)  
HbA1c- IFCC 33 mmol/mol (20-42)

The WHO recommends that an HbA1c cut-off of  $\geq 6.5\%$  (48 mmol/mol) is used to diagnose type 2 diabetes.

While it is recognised that HbA1c levels approaching this cut-off place patients at increasingly higher risk of developing diabetes ( $<6.5\%$ ), there is no consensus as to exactly which cut-off at the lower end of the continuum to use for categorising patients as high risk. Various groups quote lower limits for at-risk patients that vary between 5.5% and 6.0% (37 and 42 mmol/mol).

Please note that HbA1c should not be used for diagnosing diabetes mellitus in the following circumstances:

- Children and young people
- Pregnancy - current or within the past 2 months
- Suspected Type 1 diabetes mellitus
- Symptoms of diabetes for  $<2$  months
- Patients who are acutely ill
- Patients taking drugs that can cause rapid onset hyperglycaemia such as corticosteroids, antipsychotic drugs
- Acute pancreatic damage or pancreatic surgery
- Kidney failure
- Patients being treated for HIV infection

Please be cautious when requesting or interpreting HbA1c when patients:

- May have an abnormal haemoglobin
- May be anaemic
- May have an altered red cell lifespan (e.g. post-splenectomy)
- May have had a recent blood transfusion

Requested Tests : VBF\*, TFT, MBA, LIP, FE, FBE, A1C

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 Laboratory: Laverty Pathology  
 Addressee: DR JULIAN WHITE Referred by: DR JULIAN WHITE

Name of Test: B12, FOLATE, R.C.FOLATE (VBF-0)  
 Requested: 04/10/2023 Collected: 04/10/2023 Reported: 04/10/2023  
 23:59

#### VITAMIN B12 AND FOLATE STUDIES

Vitamin B12	<b>280</b>	pmol/L	(301-740)
Active B12	> 146	pmol/L	(> 40)
Serum Folate	> 54.0	nmol/L	(> 9.0)

#### Serum Vitamin B12 Assay:

DEFICIENCY	BORDERLINE	SUFFICIENCY
<150 pmol/L	150 - 300 pmol/L	>300 - 740 pmol/L

For patients with total B12 levels in the low or borderline range, testing for active B12 (holotranscobalamin II) will automatically be performed to resolve B12 status. Active B12 is the biologically active fraction of total serum B12, and a superior indicator of B12 status. Up to 15% of individuals may have a deficiency of the carrier protein haptocorrin, which does not result in clinical B12 deficiency, despite low total B12 levels.

#### Serum Active B12 Assay:

This active B12 result indicates that the patient is likely to be vitamin B12 sufficient. Patients with renal impairment may still be B12 depleted despite an active B12 level within this range. For these patients, correlation with total B12, homocysteine and/or methylmalonate is required.

#### Folate Interpretation:

	DEFICIENCY	BORDERLINE	SUFFICIENCY
Serum Folate:	<4.5 nmol/L	4.5 - 9.0 nmol/L	>9.0 nmol/L
RBC Folate:	<340 nmol/L	340 - 570 nmol/L	>570 nmol/L

#### Serum Folate Assay:

In the absence of recent oral intake, a serum folate >9.0 nmol/L effectively rules out folate deficiency.

Red cell folates (RCF) are no longer processed routinely. If you have requested a RCF, and require a result for appropriate clinical reasons, this will need to be discussed and agreed with a Consultant Haematologist on +61290027085 or Dr. Lucinda Wallman, Consultant Pathologist in Immunology and Medical Director on telephone number +61 290057179

Requested Tests : VBF, TFT, MBA, LIP, FE, FBE, A1C