

Report to	HAYNE, LISA Shop 7, 63-65 Maitland St , Narrabri, NSW, 2390	Patient	CHERYLEE, GOLD 134 BARWAN ST NARRABRI NSW 2390				
		Phone	0417301727	Age	37 years	Sex	F
		D.O.B	13/03/1987				
Ref. by/copy to	HAYNE, LISA	Collect date	22/03/2024	Lab ref	24-25952426		
		Collect time	08:01 AM	Your ref			
		Reported	25/03/2024		12:06 PM		
Tests requested	UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE RT3*						
Clinical notes							

URINE TRACE METALS

		(RI)	BOEL
Total Volume	Random		
Urine Creatinine	16.1 mmol/L		N/A
Urine Iodine (ug/L)	210 ug/L		N/A
Urine Iodine (Crt corrected)	114 ug/L	(> 100)	

WHO Criteria for assessing iodine nutrition based on median urinary iodine concentrations in 6 years or older:

- Severe Iodine deficiency : < 20 ug/L
- Moderate Iodine deficiency : 20-49 ug/L
- Mild Iodine deficiency : 50-99 ug/L
- Adequate Iodine intake : 100-199 ug/L
- Iodine intake above requirement : 200-299 ug/L
- Excessive Iodine intake : >= 300 ug/L

For Pregnant women

- Insufficient Iodine intake : < 150 ug/L
- Adequate Iodine intake : 150-249 ug/L
- Iodine intake above requirement : 250-499 ug/L
- Excessive Iodine intake : >= 500 ug/L

For Lactating women

- Adequate Iodine intake : >= 100 ug/L

Urine iodine (creatinine corrected) adjusts the measured result to account for changes in urine concentration. Please note: due to a high variability of an individual's urinary iodine concentration, spot urine iodine concentration is not useful for the diagnosis and treatment of individuals. For more detail refer to:

"https://apps.who.int/iris/bitstream/handle/10665/85972/WHO_NMH_NHD_EP_G_13.1_eng.pdf"

BOEL = Biological Occupational Exposure Limit
RI = Reference Interval

SURGERY USE

Normal
No Action/File
Patient Notified
Make Appoint.
Further Tests
Notes Required
Speak with Dr.
On Correct Treatment

Report to **HAYNE, LISA**
Shop 7, 63-65 Maitland St
, Narrabri, NSW, 2390

Patient **CHERYLEE, GOLD**
134 BARWAN ST NARRABRI NSW 2390

Phone 0417301727
D.O.B 13/03/1987 Age 37 years Sex F

Ref. by/copy to HAYNE, LISA Collect date 22/03/2024 Lab ref 24-25952426
Collect time 08:01 AM Your ref

Tests requested UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE Reported 25/03/2024 12:06 PM RT3*

Clinical notes

GLYCATED HAEMOGLOBIN (HbA1c)

Specimen Type: EDTA

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

SURGERY USE

- Normal
- No Action/File
- Patient Notified
- Make Appoint.
- Further Tests
- Notes Required
- Speak with Dr.
- On Correct Treatment

Report to	HAYNE, LISA Shop 7, 63-65 Maitland St , Narrabri, NSW, 2390	Patient	CHERYLEE, GOLD 134 BARWAN ST NARRABRI NSW 2390
		Phone	0417301727
		D.O.B	13/03/1987
		Age	37 years
		Sex	F
Ref. by/copy to	HAYNE, LISA	Collect date	22/03/2024
		Collect time	08:01 AM
		Reported	25/03/2024
Tests requested	UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE RT3*		
Clinical notes			

SERUM HORMONE PROFILE							
Specimen Type: Serum							
Request	Date	FSH	LH	PROG	E2(ATEL)	E2(BECK)	LH/FSH
Number	Collected	IU/L	IU/L	nmol/L	pmol/L	pmol/L	Ratio
25952426	22 Mar 24			31	236		
Reference Ranges							
Follicular		2-12	2-12	0.5-4.5		100-530	
Midcycle		12-30	>15			235-1300	
Luteal		2-12	2-15	10.6-89.1		205-790	
Menopausal		>25	>10			<100	
Prepubertal		<6	<4				

PLEASE NOTE:
'E2 (ATEL)' - Oestradiol by Siemens Atellica assay
'E2 (BECK)' - Oestradiol by Beckman Access assay

SERUM CORTISOL		
Time	08:01	
Cortisol	409	nmol/L
AM Reference Interval 120-620 nmol/L		

SERUM ANDROGENS		
Total Testosterone (Siemens)	0.8	nmol/L (0.4-1.4)
DHEAS	3.9	umol/L (1.9-7.3)

**SURGERY
USE**

Normal
No Action/File
Patient Notified
Make Appoint.
Further Tests
Notes Required
Speak with Dr.
On Correct Treatment

Report to	HAYNE, LISA Shop 7, 63-65 Maitland St , Narrabri, NSW, 2390	Patient	CHERYLEE, GOLD 134 BARWAN ST NARRABRI NSW 2390				
		Phone	0417301727				
		D.O.B	13/03/1987	Age	37 years	Sex	F
Ref. by/copy to	HAYNE, LISA	Collect date	22/03/2024	Lab ref	24-25952426		
		Collect time	08:01 AM	Your ref			
		Reported	25/03/2024		12:06 PM		
Tests requested	UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE RT3*						
Clinical notes							

VITAMIN D

Haemolysis	Nil
Serum 25(OH) Vitamin D	76 nmol/L

Suggested decision limits for Vitamin D status:

Sufficiency	51 -200	nmol/L
Mild deficiency	25 - 50	nmol/L
Marked deficiency	< 25	nmol/L
Toxicity	>250	nmol/L

References: Vitamin D and health in adults in Australia and New Zealand:
Position Statement. MJA 2012 June 18; 196(11),686-687.

THYROID PROFILE

Specimen Type: Serum	
TSH	2.1 mIU/L (0.5-4.0)
FT4	14 pmol/L (10-20)
FT3	6.2 pmol/L (3.5-6.5)

Result(s) consistent with euthyroidism.

Please note the above reference intervals have been developed from a non-pregnant healthy general population study.

SERUM VITAMIN B12

Request Number	25952426
Date Collected	22 Mar 24
Time Collected	08:01
B12 (156-740) pmol/L	646

**SURGERY
USE**

Normal

No Action/File

Patient
Notified

Make
Appoint.

Further Tests

Notes
Required

Speak
with Dr.

On Correct
Treatment

Report to	HAYNE, LISA Shop 7, 63-65 Maitland St , Narrabri, NSW, 2390	Patient	CHERYLEE, GOLD 134 BARWAN ST NARRABRI NSW 2390				
		Phone	0417301727	Age	37 years	Sex	F
		D.O.B	13/03/1987				
Ref. by/copy to	HAYNE, LISA	Collect date	22/03/2024	Lab ref	24-25952426		
		Collect time	08:01 AM	Your ref			
		Reported	25/03/2024		12:06 PM		
Tests requested	UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE RT3*						
Clinical notes							

VITAMIN B12 AND FOLATE STUDIES

Serum Folate 35.0 nmol/L (> 9.0)

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

SURGERY USE

Normal
No Action/File
Patient Notified
Make Appoint.
Further Tests
Notes Required
Speak with Dr.
On Correct Treatment

Report to	HAYNE, LISA Shop 7, 63-65 Maitland St , Narrabri, NSW, 2390	Patient	CHERYLEE, GOLD 134 BARWAN ST NARRABRI NSW 2390				
		Phone	0417301727	Age	37 years	Sex	F
		D.O.B	13/03/1987				
Ref. by/copy to	HAYNE, LISA	Collect date	22/03/2024	Lab ref	24-25952426		
		Collect time	08:01 AM	Your ref			
		Reported	25/03/2024		12:06 PM		
Tests requested	UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE RT3*						
Clinical notes							

THYROID AUTOANTIBODIES

Specimen Type: Serum

Anti-Thyroglobulin Abs (aTGII)	< 1.3	IU/mL	(< 4.5)
Anti-Thyroidal Peroxidase Abs	69	IU/mL	(< 60)

Over 90% of patients with autoimmune thyroiditis show moderate to high levels of Anti-Thyroidal Peroxidase Abs (anti-TPO) with Anti-Thyroglobulin Abs (anti-Tg) also present in about 90% of such patients. Up to 75% of patients with Graves' hyperthyroidism show increased anti-TPO with anti-Tg present in 50-60%. Low levels of both anti-TPO and anti-Tg may be found in up to 10% of "normal" asymptomatic adults. In most cases of autoimmune thyroid disease increased anti-TPO is the predominant finding although a small proportion of patients show a predominant increase in anti-Tg.

Please note that as of 08/09/2021, Lavery Pathology changed to a reformulated Atellica anti-thyroglobulin antibody (aTGII) assay. The reference interval has been updated. Differences in individual patient results may be observed compared to the previous method. If further information is required please contact a Chemical Pathologist on 9005 7000.

IRON STUDIES

Specimen Type: Serum

Serum Iron	18	umol/L	(10-30)
Transferrin	26	umol/L	(32-48)
Transferrin Saturation	35	%	(13-45)
Serum Ferritin	101	ug/L	(30-165)

Transferrin may be decreased by inflammation (acute or chronic), or protein deficiency or loss. The ferritin concentration excludes iron deficiency.

SURGERY USE

Normal

No Action/File

Patient
Notified

Make
Appoint.

Further Tests

Notes
Required

Speak
with Dr.

On Correct
Treatment

Report to	HAYNE, LISA	Patient	CHERYLEE, GOLD
	Shop 7, 63-65 Maitland St		134 BARWAN ST NARRABRI NSW 2390
	, Narrabri, NSW, 2390	Phone	0417301727
		D.O.B	13/03/1987
		Age	37 years
		Sex	F
Ref. by/copy to	HAYNE, LISA	Collect date	22/03/2024
		Lab ref	24-25952426
		Collect time	08:01 AM
		Your ref	
		Reported	25/03/2024
			12:06 PM
Tests requested	UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE RT3*		
Clinical notes			

SERUM INSULIN

Fasting status	Random
Haemolysis	Nil
Insulin	8 mU/L (< 10)

ASSESSMENT OF INSULIN RESISTANCE (FASTING SAMPLES ONLY)

< 10 - normal insulin sensitivity
10-14 - mild insulin resistance
> 14 - insulin resistance

Insulin results from non-fasting samples are difficult to interpret although any result >= 60 mU/L is likely to indicate insulin resistance.

HAEMATOLOGY

Request Number	25952426
Date Collected	22 Mar 24
Time Collected	08:01
Specimen Type:	EDTA
ESR (< 30) mm/hr	6

SURGERY
USE

Normal
No Action/File
Patient Notified
Make Appoint.
Further Tests
Notes Required
Speak with Dr.
On Correct Treatment

Report to **HAYNE, LISA**
Shop 7, 63-65 Maitland St
, Narrabri, NSW, 2390

Patient **CHERYLEE, GOLD**
134 BARWAN ST NARRABRI NSW 2390

Phone 0417301727
D.O.B 13/03/1987 Age 37 years Sex F

Ref. by/copy to **HAYNE, LISA** Collect date 22/03/2024 Lab ref 24-25952426
Collect time 08:01 AM Your ref

Reported 25/03/2024 12:06 PM

Tests requested UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE RT3*

Clinical notes

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 can be accessed in order to complete a risk assessment for individual patients.)

Haemolysis Nil
Icterus Nil
Lipaemia Nil

Fasting status	Random		
Total Cholesterol	5.1	mmol/L	(3.6-5.2)
Triglycerides	1.2	mmol/L	(0.5-1.7)
HDL Cholesterol	1.8	mmol/L	(1.0-2.0)
LDL Cholesterol	2.8	mmol/L	(1.5-3.4)
Non-HDL Cholesterol	3.3	mmol/L	(< 3.4)
Cholesterol/HDL-C Ratio	2.8		(< 4.5)

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

LDL-C exceeds target for higher risk patients and may be excessive in some individuals.

**SURGERY
USE**

- Normal
- No Action/File
- Patient
Notified
- Make
Appoint.
- Further Tests
- Notes
Required
- Speak
with Dr.
- On Correct
Treatment

Report to	HAYNE, LISA	Patient	CHERYLEE, GOLD
	Shop 7, 63-65 Maitland St		134 BARWAN ST NARRABRI NSW 2390
	, Narrabri, NSW, 2390	Phone	0417301727
		D.O.B	13/03/1987
		Age	37 years
		Sex	F
Ref. by/copy to	HAYNE, LISA	Collect date	22/03/2024
		Lab ref	24-25952426
		Collect time	08:01 AM
		Your ref	
		Reported	25/03/2024
			12:06 PM
Tests requested	UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE RT3*		
Clinical notes			

C-REACTIVE PROTEIN

Specimen Type: Serum
Serum CRP < 4.0 mg/L (< 6.0)

SERUM CHEMISTRY

Specimen Type: Serum
Haemolysis Nil
Icterus Nil
Lipaemia Nil

Sodium	139	mmol/L	(135-145)
Potassium	4.6	mmol/L	(3.6-5.4)
Chloride	103	mmol/L	(95-110)
Bicarbonate	25	mmol/L	(22-32)
Anion Gap	16	mmol/L	(10-20)
Urea	4.7	mmol/L	(2.5-8.0)
Creatinine	60	umol/L	(45-90)
eGFR	> 90		mL/min/1.73m ²
Urate	0.26	mmol/L	(0.14-0.36)
Bilirubin	6	umol/L	(< 15)
AST	14	U/L	(< 30)
ALT	21	U/L	(< 30)
GGT	19	U/L	(< 30)
Alkaline Phosphatase	54	U/L	(20-105)
Protein	68	g/L	(60-82)
Albumin	46	g/L	(38-50)
Globulin	22	g/L	(20-39)
Calcium	2.31	mmol/L	(2.10-2.60)
Corrected Calcium	2.25	mmol/L	(2.10-2.60)
Phosphate	1.02	mmol/L	(0.75-1.50)

eGFR >=90 mL/min/1.73m² usually indicates normal kidney function but does not exclude patients with early kidney damage (those with albuminuria, haematuria or abnormal kidney imaging).

SURGERY
USE

Normal
No Action/File
Patient Notified
Make Appoint.
Further Tests
Notes Required
Speak with Dr.
On Correct Treatment

Report to **HAYNE, LISA**
Shop 7, 63-65 Maitland St
, Narrabri, NSW, 2390

Patient **CHERYLEE, GOLD**
134 BARWAN ST NARRABRI NSW 2390

Phone 0417301727
D.O.B 13/03/1987 Age 37 years Sex F

Ref. by/copy to HAYNE, LISA Collect date 22/03/2024 Lab ref 24-25952426
Collect time 08:01 AM Your ref

Tests requested UTE, A1C, HOR, COR, AND, DVI, TFT, I12, VBF, TAA, FE, INS, ESR, LIP, CRP, MBA, GLU, FBE Reported 25/03/2024 12:06 PM RT3*

Clinical notes

SERUM/PLASMA GLUCOSE

Fasting status Random
Serum 5.8 mmol/L (3.4-7.7)

Follow-up assessment with an oral glucose tolerance test or HbA1c has been recommended for patients with random glucose concentrations of 5.5 - 11.0 mmol/L to maximise detection of type 2 diabetes.

HAEMATOLOGY

Date Collected 22 Mar 24
Time Collected 08:01
Specimen Type: EDTA

Hb	141 g/L	(115-165)	WBC	6.3 x10 ⁹ /L	(4.0-11.0)
RCC	4.8 x10 ¹² /L	(3.9-5.8)	Neut	3.8 x10 ⁹ /L	(2.0-7.5)
Hct	0.43	(0.34-0.47)	Lymp	1.9 x10 ⁹ /L	(1.0-4.0)
MCV	89 fL	(79-99)	Mono	0.4 x10 ⁹ /L	(0.2-1.0)
MCH	29 pg	(27-34)	Eos	0.1 x10 ⁹ /L	(< 0.7)
MCHC	330 g/L	(320-360)	Baso	0.1 x10 ⁹ /L	(< 0.2)
RDW	11.9 %	(10.0-17.0)			
Plat	239 x10 ⁹ /L	(150-400)			

HAEMATOLOGY: FBC parameters are within reference range.

SURGERY USE

Normal

No Action/File

Patient
Notified

Make
Appoint.

Further Tests

Notes
Required

Speak
with Dr.

On Correct
Treatment