

HARPER, IMOGEN
 6402/32 WELLINGTON ST, BONDI BEACH. 2026
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: **Lab Reference:** 295861772-C-Iron Studies
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR ATIRANJAN JHAJJ

Name of Test: Iron Studies
Requested: 14/01/2019 **Collected:** 24/01/2019 **Reported:** 21/11/2019
 15:32

Clinical Notes : thyroid antibodies abnormal

IRON

Date	31/01/14	21/05/14	21/02/18	24/01/19		
Time F-Fast	1050	Unkn	Unkn	0735 F		
Lab ID	258289617	293217965	244064203	295861772	Units	Reference
Iron	13.8	9.2	15.3		umol/L	(5.0-30.0)
Transferrin	2.7	3.0	3.0		g/L	(2.0-3.6)
TIBC (Calc)	60	66	66		umol/L	(46-77)
Saturation	23	14	23		%	(10-45)
Ferritin	73	22	26	26	ug/L	(15-200)

Comments on Collection 24/01/19 0735 F:
 Serum ferritin levels between 15-30 ug/L may reflect depleted iron stores
 and iron therapy may be indicated.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: Ferr(s),:TFT(s),FBC(e)
 Tests Pending :
 Sample Pending :

HARPER, IMOGEN
 6402/32 WELLINGTON ST, BONDI BEACH. 2026
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: **Lab Reference:** 295861772-E-Thyroid Function
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR ATIRANJAN JHAJJ

Name of Test: Thyroid Function
Requested: 14/01/2019 **Collected:** 24/01/2019 **Reported:** 21/11/2019
 15:32

Clinical Notes : thyroid antibodies abnormal

TFT

Date	21/05/14	21/02/18	30/05/18	24/01/19		
Time F-Fast	Unkn	Unkn	1426	0735 F		
Lab ID	293217965	244064203	281730077	295861772	Units	Reference
TSH..	0.83	1.08	1.39	1.96	mIU/L	(0.40-3.50)

Free T4..	13.0	12.1	13.8	pmol/L	(9.0-19.0)
Free T3		4.2	4.0	pmol/L	(2.6-6.0)

Comments on Collection 24/01/19 0735 F:
Euthyroid values.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: Ferr(s),:TFT(s),FBC(e)

Tests Pending :

Sample Pending :

HARPER, IMOGEN
6402/32 WELLINGTON ST, BONDI BEACH. 2026
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: **Lab Reference:** 295861772-H- HAEM VIRTUAL
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR ATIRANJAN JHAJJ

Name of Test: Haematology

Requested: 14/01/2019 **Collected:** 24/01/2019 **Reported:** 21/11/2019
15:32

Clinical Notes : thyroid antibodies abnormal

HAEMATOLOGY

Date	21/05/14	30/05/18	24/01/19		
Time F-Fast	Unkn	1426	0735 F		
Lab ID	293217965	281730077	295861772	Units	Reference
Haemoglobin	141	143	138	g/L	(119-160)
RCC	4.6	4.8	4.4	x10*12/L	(3.8-5.8)
Haematocrit	0.42	0.43	0.40		
(0.35-0.48)					
MCV	92	91	91	fL	(80-100)
MCH	30.8	30.0	31.2	pg	
(27.0-32.0)					
MCHC	334	329	342	g/L	(310-360)
RDW	13.0	12.1	12.0		
(10.0-15.0)					
WCC	8.9	7.1	5.1	x10*9/L	(4.0-11.0)
Neutrophils	5.98	3.74	2.65	x10*9/L	(2.0-7.5)
Lymphocytes	2.23	1.99	1.66	x10*9/L	(1.0-4.0)
Monocytes	0.43	H 1.04	0.59	x10*9/L	(0.0-1.0)
Eosinophils	0.21	0.25	0.16	x10*9/L	(0.0-0.5)
Basophils	0.06	0.11	0.07	x10*9/L	(0.0-0.3)
NRBC		<1.0	<1.0	/100 WBC	(<1)
Platelets	363	358	308	x10*9/L	(150-450)

Comments on Collection 24/01/19 0735 F:
Full blood count is within reference limits

Supervising Pathologist: FH

NATA Accreditation No 2178

Tests Completed: Ferr(s),:TFT(s),FBC(e)

Tests Pending :

Sample Pending :

HARPER, IMOGEN
6402/32 WELLINGTON ST, BONDI BEACH. 2026
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: **Lab Reference:** 294545301-E-Vitamin B12/Folate
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR LISA GREER

Name of Test: B12/Folate/RCF
Requested: 01/04/2019 **Collected:** 02/04/2019 **Reported:** 21/11/2019
15:32

Clinical Notes : PREV LOW B12 (VEGAN) HIGH CHOL

VIT B12 & FOLATE

Date	21/02/18	02/04/19		
Time F-Fast	Unkn	0910 F		
Lab ID	244064203	294545301	Units	Reference
Vitamin B12	343	162	pmol/L	(135-650)
S.Fol (Abbott)		18.4	nmol/L	(>7.0)

Comments on Collection 02/04/19 0910 F:
Vitamin B12 performed by Abbott Architect method.

Borderline B12 level (135 - 170 pmol/L). Recommend review after correction of any dietary deficiency. Persistently borderline levels may require further assessment. This may include intrinsic factor antibody (IF Ab) +/- gastric parietal cell antibody (GPC Ab).
From 8 March 2014, active B12 (holotranscobalamin) testing will be performed on all patients with low or equivocal (at or below 340 pmol/L) total B12 results. Both tests are eligible for a Medicare rebate under these circumstances.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: B12(s),Fol(s),Glu(p),HDL & LIPIDS, Active B12(s)
Tests Pending :
Sample Pending :

HARPER, IMOGEN
6402/32 WELLINGTON ST, BONDI BEACH. 2026
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: **Lab Reference:** 294545301-C-_Glucose
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR LISA GREER

Name of Test: _Glucose
Requested: 01/04/2019 **Collected:** 02/04/2019 **Reported:** 21/11/2019
15:32

Clinical Notes : PREV LOW B12 (VEGAN) HIGH CHOL

GLUCOSE

Date 21/05/14 **02/04/19**
Time F-Fast Unkn **0910 F**
Lab ID 293217965 **294545301**

		Units	Reference
F Gluc Plasma	4.6	mmol/L	(3.6-6.0)
R Gluc Serum	4.5	mmol/L	(3.6-7.8)

Comments on Collection 02/04/19 0910 F:
 Diabetes is unlikely if fasting glucose levels are less than 5.5 mmol/L but
 an OGTT could be indicated in the presence of risk factors such as
 metabolic syndrome, past gestational diabetes, polycystic ovary or family
 history of type 2 diabetes.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: B12(s),Fol(s),Glu(p),HDL & LIPIDS, Active B12(s)
 Tests Pending :
 Sample Pending :

HARPER, IMOGEN
 6402/32 WELLINGTON ST, BONDI BEACH. 2026
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: **Lab Reference:** 294545301-C-Lipids and HDL
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR LISA GREER

Name of Test: Lipids and HDL
Requested: 01/04/2019 **Collected:** 02/04/2019 **Reported:** 21/11/2019
 15:32

Clinical Notes : PREV LOW B12 (VEGAN) HIGH CHOL

LIPIDS AND HDL

Date 21/05/14 **02/04/19**
Time F-Fast Unkn **0910 F**
Lab ID 293217965 **294545301**

		Units	Reference
Status	Unknown Fasting		
Cholesterol	H 6.6 4.3	mmol/L	(3.9-5.5)
Triglycerides	1.0 0.7	mmol/L	(0.5-1.7)
HDL Chol.	1.9 1.5	mmol/L	(0.9-2.1)
LDL Chol.	H 4.2 2.5	mmol/L	(1.7-3.5)

Comments on Collection 02/04/19 0910 F:
 According to current guidelines (Position Statement 2005),
 suggested targets are:
 HDL Cholesterol >1.0 mmol/L
 LDL Cholesterol <2.0 mmol/L (for patients at high risk)
 <2.5 mmol/L (for patients at lower risk)
 Triglycerides <1.5 mmol/L

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: B12(s),Fol(s),Glu(p),HDL & LIPIDS, Active B12(s)
 Tests Pending :
 Sample Pending :

HARPER, IMOGEN
 6402/32 WELLINGTON ST, BONDI BEACH. 2026
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: **Lab Reference:** 294545301-C-HOLOTC
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR LISA GREER

Name of Test: Active B12(s)
Requested: 01/04/2019 **Collected:** 02/04/2019 **Reported:** 21/11/2019
 15:32

Clinical Notes : PREV LOW B12 (VEGAN) HIGH CHOL

Active B12

Active B12 99 pmol/L (>35)

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: B12(s),Fol(s),Glu(p),HDL & LIPIDS, Active B12(s)
 Tests Pending :
 Sample Pending :

HARPER, IMOGEN
 85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 842238649 **Lab Reference:** 842238649-E-Thyroid
 Function

Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Thyroid Function
Requested: 06/12/2019 **Collected:** 06/12/2019 **Reported:** 10/12/2019
 07:33

Clinical Notes : NO HISTORY

TFT

Date	30/05/18	24/01/19	06/12/19	06/12/19		
Time F-Fast	1426	0735 F	0850 F	0852 F		
Lab ID	281730077	295861772	842238600	842238649	Units	Reference
TSH..	1.39	1.96	1.88		mIU/L	
(0.40-3.50)						
Free T4..	12.1	13.8		15.0	pmol/L	(9.0-19.0)
Free T3	4.2	4.0		4.7	pmol/L	(2.6-6.0)

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: Vit D(s), FT3(s), FT4(s), Plasma Zn(e)
 Tests Pending : Cu(s), Reverse T3(s)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 842238649 **Lab Reference:** 842238649-C-VITD
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Vit D(s)
Requested: 06/12/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
12:32

Clinical Notes : NO HISTORY

25-OH Vitamin D

Vitamin D 68 nmol/L (50 - 140)

Comment on Lab ID 842238649

According to the Position Statement 'Vitamin D and health in adults in Australia and New Zealand' MJA, 196(11):686-687, 2012, Vitamin D status is defined as:

Mild Deficiency	30	-	49 nmol/L
Moderate Deficiency	12.5	-	29 nmol/L
Severe Deficiency	<12.5		nmol/L

Vitamin D adequacy can be defined as a level >49 nmol/L at the end of winter - the level may need to be 10 - 20 nmol/L higher at the end of summer, to allow for seasonal decrease.
From 1st November 2014, Medicare rebates for vitamin D testing will apply to patients at risk of Vitamin D deficiency such as chronic lack of sun exposure.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: Vit D(s), Plasma Zn(e)
Tests Pending : Cu(s), FT3(s), FT4(s), Reverse T3(s)
Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 842238649 **Lab Reference:** 842238649-R-_Zinc
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: _Zinc
Requested: 06/12/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
12:12

Clinical Notes : NO HISTORY

Zinc

Zinc-plasma 11.5 umol/L (9.0 - 19.0)

Comment on Lab ID 842238649

Reported by Sullivan and Nicolaides Pathology, a member of the Sonic Healthcare Group.

NATA Accreditation No 2178

Tests Completed: Plasma Zn(e)

Tests Pending : Vit D(s), Cu(s), FT3(s), FT4(s), Reverse T3(s)

Sample Pending :

HARPER, IMOGEN

85 CASTLE CIRCUIT, SEAFORTH. 2092

Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983

Your Reference: 00000088 **Lab Reference:** 842238600-C-C731

Laboratory: Douglass Hanly Moir Pathology

Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Metals, Blood

Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
11:52

Clinical Notes : HX OF HASHIMOTOS

Heavy Metals

Blood Lead	0.19	umol/L	(<0.24)
Blood Lead	4.0	ug/dL	(<5)

Comment on Lab ID 842238600

The NHMRC currently recommends that if a person has a blood lead level greater than 0.24 umol/L (5 ug/dL), then the source of exposure should be investigated and reduced, particularly if the person is a child or pregnant woman.

For occupational exposure, recommended decision levels and testing frequencies are specified in:

Lead (inorganic) - Hazardous Chemicals Requiring Health Monitoring at www.safeworkaustralia.gov.au (accessed 22nd February 2016).

Immediate removal from exposure is necessary if blood lead levels are greater than or equal to:

2.42 umol/L (50 ug/dL) for females not of reproductive capacity and males
0.97 umol/L (20 ug/dL) for females of reproductive capacity
0.72 umol/L (15 ug/dL) for females who are pregnant or breast feeding

Return to lead risk work must not occur until blood lead levels are less than:

1.93 umol/L (40 ug/dL) for females not of reproductive capacity and males
0.48 umol/L (10 ug/dL) for females of reproductive capacity
and the worker has been assessed as medically fit to return to lead risk work by the medical practitioner supervising health monitoring

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s),FSH(s),Oest(s),Prog(s),DHEAS(s),Commenting,
Fol(s),LFT(s),Cr(s),UCreat(s),E(s),Phos(s),Iron(s),
HDL & LIPIDS,CRP(s),Pb(e),TSH(s),Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s),Thyroid Abs(s),FBC(e),Gliadin/TTG(s),IgA(s)

Tests Pending :
Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-C-_GHB
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: _HbA1c_
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
07:32

Clinical Notes : HX OF HASHIMOTOS

Haemoglobin A1c

HbA1c (IFCC)	28	mmol/mol	(20 - 38)
HbA1c	4.7	%	(4.0 - 5.6)

Comment on Lab ID 842238600

HbA1c less than 48 mmol/mol (6.5%) does not exclude a diagnosis of diabetes mellitus based upon elevated glucose results. The existing diagnostic criteria for fasting and random glucose levels and for oral glucose tolerance testing remain valid, and are the diagnostic tests of choice for gestational diabetes, type 1 diabetes and in the presence of conditions that interfere with HbA1c measurement. Conditions which may affect the measured HbA1c value include any of the haemolytic anaemias, anaemia of chronic disease, severe liver disease, vitamin B12 and/or folate deficiency, the haemoglobinopathies and regular phlebotomy performed for medical indications or for blood donation. It also should be noted that further investigation is required for any inexplicably low HbA1c level or significant discrepancy between HbA1c and glucose results.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s),FSH(s),Oest(s),Prog(s),DHEAS(s),Commenting,
Fol(s),LFT(s),Cr(s),UCreat(s),E(s),Phos(s),Iron(s),
HDL & LIPIDS,CRP(s),TSH(s),Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s),Thyroid Abs(s),FBC(e),Gliadin/TTG(s),IgA(s)

Tests Pending : Pb(e)
Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-C-HOLOTC
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Active B12(s)
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
07:32

Clinical Notes : HX OF HASHIMOTOS

Date	02/04/19	06/12/19		
Time F-Fast	0910 F	0850 F		
Lab ID	294545301	842238600	Units	Reference
Active B12	99	102	pmol/L	(>35)

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s), FSH(s), Oest(s), Prog(s), DHEAS(s), Commenting,
Fol(s), LFT(s), Cr(s), UCreat(s), E(s), Phos(s), Iron(s),
HDL & LIPIDS, CRP(s), TSH(s), Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s), Thyroid Abs(s), FBC(e), Gliadin/TTG(s), IgA(s)

Tests Pending : Pb(e)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-E-Testo, SHBG, FAI
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Testo, SHBG, FAI
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
07:32

Clinical Notes : HX OF HASHIMOTOS

Androgens

Testosterone	1.7	nmol/L	(0.2 - 1.8)
SHBG	H 149	nmol/L	(30 - 110)
Free Androgen Index	1.1	%	(0.3 - 4.0)

Comment on Lab ID 842238600

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s), FSH(s), Oest(s), Prog(s), DHEAS(s), Commenting,
Fol(s), LFT(s), Cr(s), UCreat(s), E(s), Phos(s), Iron(s),
HDL & LIPIDS, CRP(s), TSH(s), Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s), Thyroid Abs(s), FBC(e), Gliadin/TTG(s), IgA(s)

Tests Pending : Pb(e)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:**
842238600-I-Immunoglobulins
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL
Name of Test: Immunoglobulins
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
07:32

Clinical Notes : HX OF HASHIMOTOS

Immunoglobulins

Immunoglobulin A 2.05 g/L (0.60 - 3.96)

Comment on Lab ID 842238600

Supervising Pathologist: KB

NATA Accreditation No 2178

Tests Completed: LH(s), FSH(s), Oest(s), Prog(s), DHEAS(s), Commenting,
Fol(s), LFT(s), Cr(s), UCreat(s), E(s), Phos(s), Iron(s),
HDL & LIPIDS, CRP(s), TSH(s), Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s), Thyroid Abs(s), FBC(e), Gliadin/TTG(s), IgA(s)

Tests Pending : Pb(e)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-I-COEL
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL
Name of Test: Gliadin/TTG(s)
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
07:32

Clinical Notes : HX OF HASHIMOTOS

Coeliac Serology

Deamidated Gliadin IgA	<1	U/mL	(<15)
Deamidated Gliadin IgG	<1	U/mL	(<15)
Tissue Transglutaminase IgA	<1	U/mL	(<15)
Tissue Transglutaminase IgG	<1	U/mL	(<15)

Comment on Lab ID 842238600

Performed on Bioplex 2200. This detects selective IgA deficiency (<0.07 g/L), an additional comment will be attached if detected.

In persons eating wheat (most days, last six weeks), negative serology effectively excludes coeliac disease/dermatitis herpetiformis. One elevated

marker may occur without disease whereas two or more elevated (at four times the cutoff level) markers strongly predict coeliac disease which can be confirmed by biopsy.

Serology becomes negative on gluten free diet (6-9 months for IgA-deam gliadin and IgA-tTG, 9-15 months for IgG-deam gliadin and IgG-tTG). Without compliance, coeliac markers rise. Coeliac tissue-typing excludes coeliac disease risk by excluding HLA-DQ2 or DQ8 in persons with discordant serology or discordant serology-biopsy findings.

Supervising Pathologist: KB

NATA Accreditation No 2178

Tests Completed: LH(s),FSH(s),Oest(s),Prog(s),DHEAS(s),Commenting,
Fol(s),LFT(s),Cr(s),UCreat(s),E(s),Phos(s),Iron(s),
HDL & LIPIDS,CRP(s),TSH(s),Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s),Thyroid Abs(s),FBC(e),Gliadin/TTG(s),IgA(s)

Tests Pending : Pb(e)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-C-Thyroid Abs
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Thyroid Abs

Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 09/12/2019
07:32

Clinical Notes : HX OF HASHIMOTOS

THYROID ANTIBODIES

Date	21/02/18	06/12/19		
Time F-Fast	Unkn	0850 F		
Lab ID	244064203	842238600	Units	Reference
Anti-Tg (Abbott)	H 42.2	H 13.5	IU/mL	(<4.1)
Anti-TPO (Abbott)	0.6	2.2	IU/mL	(<5.6)

Comments on Collection 06/12/19 0850 F:

Elevated thyroglobulin antibodies can occur in Hashimoto's disease, other thyroid disorders as well as in clinically normal persons.

From 06/09/17, Thyroid antibodies will be measured by the Abbott Architect (not Immulite) method and reported with new reference intervals.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s),FSH(s),Oest(s),Prog(s),DHEAS(s),Commenting,
Fol(s),LFT(s),Cr(s),UCreat(s),E(s),Phos(s),Iron(s),
HDL & LIPIDS,CRP(s),TSH(s),Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s),Thyroid Abs(s),FBC(e),Gliadin/TTG(s),IgA(s)

Tests Pending : Pb(e)

Sample Pending :

HARPER, IMOGEN
 85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-E-Hormones
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Hormones
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
 13:32

Clinical Notes : HX OF HASHIMOTOS

Reproductive Hormones
 (Abbott Method)

FSH	4.4	IU/L	
LH	4.0	IU/L	
Oestradiol	759	pmol/L	
Progesterone	37.5	nmol/L	
DHEAS	8.6	umol/L	(2.4 - 13)

Comment on Lab ID 842238600

FSH	Basal	1.5 - 10
	Mid cycle peak	7.0 - 22
	Post-menopausal	25 - 130

LH	Basal	2.0 - 12
	Mid cycle peak	8.0 - 90
	Post-menopausal	5.0 - 62

Oestradiol	Follicular phase	<320
	Preovulatory phase	450 - 2000
	Luteal phase	125 - 1300
	Post-menopausal	<170

Progesterone	Follicular phase	0.3 - 4.0
	Luteal phase	5.5 - 90.0
	Midluteal	8.5 - 110.0

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s), FSH(s), Oest(s), Prog(s), DHEAS(s), Commenting,
 Fol(s), LFT(s), Cr(s), UCreat(s), E(s), Phos(s), Iron(s),
 HDL & LIPIDS, CRP(s), TSH(s), Insulin(s), FBC(e)
 Tests Pending : Pb(e), Testosterone(s), Active B12(s), HbA1c Diag(e),
 .SHBG/FAI(s), Thyroid Abs(s), Gliadin/TTG(s), IgA(s)
 Sample Pending :

HARPER, IMOGEN
 85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-C-INS
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Insulin(s)
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
 13:12

Clinical Notes : HX OF HASHIMOTOS

Insulin
 (Abbott Architect Method)

Insulin, Fasting 9 mU/L (0 - 20)

Comment on Lab ID 842238600

In a non-pregnant patient, serum insulin(s) >80 mU/L following a 75g oral glucose load and/or fasting insulin(s) >14 mU/L (in the absence of insulinoma) are consistent with insulin resistance. Post-load insulin(s) of 60 - 80 mU/L and/or fasting insulin(s) of 10 - 14 mU/L are suggestive of insulin resistance and follow-up may be indicated in the presence of risk factors such as obesity or a positive family history.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s), FSH(s), DHEAS(s), Fol(s), LFT(s), Cr(s), UCreat(s),
 E(s), Phos(s), Iron(s), HDL & LIPIDS, CRP(s), TSH(s),
 Insulin(s), FBC(e)

Tests Pending : Oest(s), Prog(s), Commenting, Pb(e), Testosterone(s),
 Active B12(s), HbA1c Diag(e), .SHBG/FAI(s),
 Thyroid Abs(s), Gliadin/TTG(s), IgA(s)

Sample Pending :

HARPER, IMOGEN
 85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-E-Thyroid
 Function
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Thyroid Function
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
 13:12

Clinical Notes : HX OF HASHIMOTOS

TFT

Date	21/02/18	30/05/18	24/01/19	06/12/19
Time F-Fast	Unkn	1426	0735 F	0850 F
Lab ID	244064203	281730077	295861772	842238600 Units Reference

TSH..	1.08	1.39	1.96	1.88	mIU/L	
(0.40-3.50)						
Free T4..	13.0	12.1	13.8		pmol/L	(9.0-19.0)
Free T3		4.2	4.0		pmol/L	(2.6-6.0)

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s),FSH(s),DHEAS(s),Fol(s),LFT(s),Cr(s),UCreat(s),
E(s),Phos(s),Iron(s),HDL & LIPIDS,CRP(s),TSH(s),
Insulin(s),FBC(e)

Tests Pending : Oest(s),Prog(s),Commenting,Pb(e),Testosterone(s),
Active B12(s), HbA1c Diag(e),.SHBG/FAI(s),
Thyroid Abs(s),Gliadin/TTG(s),IgA(s)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-C-Iron Studies
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Iron Studies
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
13:12

Clinical Notes : HX OF HASHIMOTOS

IRON

Date	21/05/14	21/02/18	24/01/19	06/12/19		
Time F-Fast	Unkn	Unkn	0735 F	0850 F		
Lab ID	293217965	244064203	295861772	842238600	Units	Reference
Iron	9.2	15.3		29.4	umol/L	(5.0-30.0)
Transferrin	3.0	3.0		2.4	g/L	(2.0-3.6)
TIBC (Calc)	66	66		54	umol/L	(46-77)
Saturation	14	23		H 54	%	(10-45)
Ferritin	22	26	26	39	ug/L	(15-200)

Comments on Collection 06/12/19 0850 F:
? History of iron therapy. Recommend follow up iron studies.

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s),FSH(s),DHEAS(s),Fol(s),LFT(s),Cr(s),UCreat(s),
E(s),Phos(s),Iron(s),HDL & LIPIDS,CRP(s),TSH(s),
Insulin(s),FBC(e)

Tests Pending : Oest(s),Prog(s),Commenting,Pb(e),Testosterone(s),
Active B12(s), HbA1c Diag(e),.SHBG/FAI(s),
Thyroid Abs(s),Gliadin/TTG(s),IgA(s)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983

Your Reference: 00000088 **Lab Reference:** 842238600-E-Vitamin
 B12/Folate
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL
Name of Test: B12/Folate/RCF
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
 13:12

Clinical Notes : HX OF HASHIMOTOS

VIT B12 & FOLATE

Date	21/02/18	02/04/19	06/12/19		
Time F-Fast	Unkn	0910 F	0850 F		
Lab ID	244064203	294545301	842238600	Units	Reference
Vitamin B12	343	162		pmol/L	(135-650)
S.Fol (Abbott)		18.4	25.4	nmol/L	(>7.0)

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LH(s),FSH(s),DHEAS(s),Fol(s),LFT(s),Cr(s),UCreat(s),
 E(s),Phos(s),Iron(s),HDL & LIPIDS,CRP(s),TSH(s),
 Insulin(s),FBC(e)

Tests Pending : Oest(s),Prog(s),Commenting,Pb(e),Testosterone(s),
 Active B12(s), HbA1c Diag(e),.SHBG/FAI(s),
 Thyroid Abs(s),Gliadin/TTG(s),IgA(s)

Sample Pending :

HARPER, IMOGEN
 85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-C-CRP
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: CRP(s)
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
 11:12

Clinical Notes : HX OF HASHIMOTOS

C Reactive Protein (High Sens)

CRP 0.4 mg/L (0.0 - 5.0)

Comment on Lab ID 842238600

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LFT(s),Cr(s),UCreat(s),E(s),Phos(s),HDL & LIPIDS,
 CRP(s),FBC(e)

Tests Pending : LH(s),FSH(s),Oest(s),Prog(s),DHEAS(s),Commenting,
 Fol(s),Iron(s),Pb(e),TSH(s),Testosterone(s),
 Insulin(s), Active B12(s), HbA1c Diag(e),

.SHBG/FAI(s),Thyroid Abs(s),Gliadin/TTG(s),IgA(s)
Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-C-Lipids and HDL
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Lipids and HDL
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
11:12

Clinical Notes : HX OF HASHIMOTOS

LIPIDS AND HDL

Date	21/05/14	02/04/19	06/12/19		
Time F-Fast	Unkn	0910 F	0850 F	Units	Reference
Lab ID	293217965	294545301	842238600		
Status	Unknown	Fasting	Fasting		
Cholesterol	H 6.6	4.3	4.4	mmol/L	(3.9-5.5)
Triglycerides	1.0	0.7	1.0	mmol/L	(0.5-1.7)
HDL Chol.	1.9	1.5	1.3	mmol/L	(0.9-2.1)
LDL Chol.	H 4.2	2.5	2.6	mmol/L	(1.7-3.5)

Comments on Collection 06/12/19 0850 F:
According to current guidelines (Position Statement 2005),
suggested targets are:
HDL Cholesterol >1.0 mmol/L
LDL Cholesterol <2.0 mmol/L (for patients at high risk)
<2.5 mmol/L (for patients at lower risk)
Triglycerides <1.5 mmol/L

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LFT(s),Cr(s),UCreat(s),E(s),Phos(s),HDL & LIPIDS,
CRP(s),FBC(e)
Tests Pending : LH(s),FSH(s),Oest(s),Prog(s),DHEAS(s),Commenting,
Fol(s),Iron(s),Pb(e),TSH(s),Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s),Thyroid Abs(s),Gliadin/TTG(s),IgA(s)
Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-C-Biochemistry
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Biochemistry
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
11:12

Clinical Notes : HX OF HASHIMOTOS

BIOCHEMISTRY

Date	21/05/14	02/04/19	06/12/19		
Time F-Fast	Unkn	0910 F	0850 F		
Lab ID	293217965	294545301	842238600	Units	Reference
Status	Unknown	Fasting	Fasting		
Sodium	139		136	mmol/L	(135-145)
Potassium	5.0		4.5	mmol/L	(3.5-5.5)
Chloride	105		101	mmol/L	(95-110)
Bicarbonate	22		23	mmol/L	(20-32)
Urea	5.9		4.1	mmol/L	(2.5-7.0)
Creatinine	65		70	umol/L	(45-85)
eGFR	>90		>90	mL/min/1.73m2	(>59)
Phosphate.			1.07	mmol/L	(0.8-1.5)
Bili.Total	4		15	umol/L	(3-15)
ALP	90		55	U/L	(20-105)
GGT	24		14	U/L	(5-35)
LD	223		150	U/L	(120-250)
AST	21		20	U/L	(10-35)
ALT	16		16	U/L	(5-30)
Total Protein	79		72	g/L	(68-85)
Albumin	46		44	g/L	(37-48)
Globulin	33		28	g/L	(23-39)
Cholesterol	H 6.6	4.3	4.4	mmol/L	(3.9-5.5)
Triglycerides	1.0	0.7	1.0	mmol/L	(0.5-1.7)

Comments on Collection 06/12/19 0850 F:
eGFR (mL/min/1.73m2) calculated by CKD-EPI formula - see www.kidney.org.au

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: LFT(s),Cr(s),UCreat(s),E(s),Phos(s),HDL & LIPIDS,
CRP(s),FBC(e)

Tests Pending : LH(s),FSH(s),Oest(s),Prog(s),DHEAS(s),Commenting,
Fol(s),Iron(s),Pb(e),TSH(s),Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s),Thyroid Abs(s),Gliadin/TTG(s),IgA(s)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 00000088 **Lab Reference:** 842238600-H- HAEM VIRTUAL
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: _Haematology
Requested: 26/11/2019 **Collected:** 06/12/2019 **Reported:** 06/12/2019
10:52

Clinical Notes : HX OF HASHIMOTOS

HAEMATOLOGY

Date	21/05/14	30/05/18	24/01/19	06/12/19		
Time F-Fast	Unkn	1426	0735 F	0850 F		
Lab ID	293217965	281730077	295861772	842238600	Units	Reference
Haemoglobin	141	143	138	131	g/L	(119-160)
RCC	4.6	4.8	4.4	4.3	x10 ¹² /L	(3.8-5.8)
Haematocrit (0.35-0.48)	0.42	0.43	0.40	0.37		
MCV	92	91	91	86	fL	(80-100)
MCH (27.0-32.0)	30.8	30.0	31.2	30.3	pg	
MCHC	334	329	342	352	g/L	(310-360)
RDW (10.0-15.0)	13.0	12.1	12.0	12.2		
WCC	8.9	7.1	5.1	7.5	x10 ⁹ /L	(4.0-11.0)
Neutrophils	5.98	3.74	2.65	4.80	x10 ⁹ /L	(2.0-7.5)
Lymphocytes	2.23	1.99	1.66	1.87	x10 ⁹ /L	(1.0-4.0)
Monocytes	0.43	H 1.04	0.59	0.61	x10 ⁹ /L	(0.0-1.0)
Eosinophils	0.21	0.25	0.16	0.12	x10 ⁹ /L	(0.0-0.5)
Basophils	0.06	0.11	0.07	0.10	x10 ⁹ /L	(0.0-0.3)
NRBC		<1.0	<1.0	<1.0	/100 WBC	(<1)
Platelets	363	358	308	353	x10 ⁹ /L	(150-450)

Comments on Collection 06/12/19 0850 F:
Full blood count is within reference limits

Supervising Pathologist: FH

NATA Accreditation No 2178

Tests Completed: FBC(e)

Tests Pending : LH(s), FSH(s), Oest(s), Prog(s), DHEAS(s), Commenting,
Fol(s), LFT(s), Cr(s), UCreat(s), E(s), Phos(s), Iron(s),
HDL & LIPIDS, CRP(s), Pb(e), TSH(s), Testosterone(s),
Insulin(s), Active B12(s), HbA1c Diag(e),
.SHBG/FAI(s), Thyroid Abs(s), Gliadin/TTG(s), IgA(s)

Sample Pending :

HARPER, IMOGEN

85 CASTLE CIRCUIT, SEAFORTH. 2092

Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983

Your Reference: 842238649 **Lab Reference:** 842238649-C-731

Laboratory: Douglass Hanly Moir Pathology

Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Metals, Blood

Requested: 06/12/2019 **Collected:** 06/12/2019 **Reported:** 10/12/2019
12:52

Clinical Notes : NO HISTORY

Heavy Metals

Serum Copper 15 umol/L (12 - 22)

Supervising Pathologist: GC, NT

NATA Accreditation No 2178

Tests Completed: Vit D(s), Cu(s), FT3(s), FT4(s), Plasma Zn(e)

Tests Pending : Reverse T3(s)

Sample Pending :

HARPER, IMOGEN
85 CASTLE CIRCUIT, SEAFORTH. 2092
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 2735275983
Your Reference: 842238649 **Lab Reference:** 842238649-R-RT3
Laboratory: Douglass Hanly Moir Pathology
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: Reverse T3(s)
Requested: 06/12/2019 **Collected:** 06/12/2019 **Reported:** 11/12/2019
15:12

Clinical Notes : NO HISTORY

Reverse Triiodothyronine

Reverse T3 425 pmol/L (140 - 540)

Comment on Lab ID 842238649

Reported by Sullivan and Nicolaides Pathology, a member of the
Sonic Healthcare Group.

NATA Accreditation No 2178

Tests Completed: Vit D(s), Cu(s), FT3(s), FT4(s), Reverse T3(s), Plasma Zn(e)
Tests Pending :
Sample Pending :

HARPER, IMOGEN L
Birthdate: 11/09/1986 **Sex:** F **Medicare Number:** 27352759831
Your Reference: 7093399 **Lab Reference:** 7093399
Laboratory: PRP Diagnostic Imaging
Addressee: DR CHRISTOPHER CHAPPEL **Referred by:** DR CHRISTOPHER CHAPPEL

Name of Test: DEXA BONE DENSITOMETRY (BF045)
Requested: 10/01/2020 **Collected:** 14/01/2020 **Reported:** 14/01/2020
14:43

This report is for: Dr C. CHAPPEL
Referred By:-:
Dr C. CHAPPEL

BONE MINERAL DENSITY SCAN 14/01/2020 Reference: 7093399

BONE MINERAL DENSITOMETRY

HISTORY:
? osteoporosis.

TECHNIQUE:
Dual energy x-ray densitometry using Lunar Prodigy, narrow angle fan
beam, with Encore software. The reference population used was

Australian Geelong/Lunar normal standard.

Previous studies: None.

FINDINGS:

Site		BMD (g/cm2)	T score
Lumbar Spine	L1-L4	1.132	-0.6
Left Hip	Neck	0.927	-0.7
	Total Hip	0.901	-1.1
Right Hip	Neck	0.864	-1.2
	Total Hip	0.877	-1.3
Mean Total Hip		0.889	-1.2

Fracture risk may be calculated using on-line calculators such as :
<https://www.garvan.org.au/promotions/bone-fracture-risk/calculator/>

COMMENT:

Bone mineral density values are in the osteopenic range.

WHO definitions:

normal (T-score -1.0 and above)

osteopenia (T-score between -1.0 and -2.5)

osteoporosis (T-score -2.5 and below)

Comments:

Relative fracture risk doubles for every 1.0 SD reduction.

Spinal values are commonly elevated by spinal degenerative change.

In the hip, the femoral neck is most sensitive for detecting osteoporosis, but is also very sensitive to variation in technical factors such as slight differences in hip positioning, which may lead to variability between different exams. Total hip value is more robust and less sensitive to technical variation, allowing accurate evaluation of change over time.

Dr Alan Chai

Electronically verified by: Dr Alan Chai - 14/01/2020 14:40

Seasons Greetings and a Happy New Year from all at PRP.