

- > Hydrogen/Methane Breath Testing for Gastro-intestinal Carbohydrate Intolerance
- > Doctor's Noticeboard
- > Collection Centre Updates



## Hydrogen/Methane Breath Testing for Gastro-intestinal Carbohydrate Intolerance

**Dr Charles Appleton**

Poorly specific gastro-intestinal symptoms and suspected carbohydrate food intolerance are common presentations to primary medical care practitioners (Table 1). These are among the most common causes for referral to a gastroenterologist.

QML Pathology has been offering breath hydrogen testing for over 30 years and can offer both hydrogen and methane levels on the same samples.

### Where do hydrogen and methane fit into human metabolism?

The gases, hydrogen and methane are not normal human metabolites. They are generally found in trace amounts in the breath as a result of absorption of products of metabolism from colonic bacteria. However in pathological states, increased amounts of these gases appear in the breath as a result of the presence of bacteria in the small intestine or malabsorption of simple sugars inappropriately reaching the colonic bacteria.

Table 1:

|   |
|---|
| Bloating, abdominal discomfort, altered bowel habit |
| Irritable bowel syndrome                            |
| Chronic diarrhoea in adults                         |
| Suspected lactose or other carbohydrate intolerance |
| Suspected small intestinal bacterial overgrowth     |

These gases are only part of the constellation of metabolites which may cause discomfort. When bacteria metabolise sugars, they convert the relatively large molecules into much smaller more abundant substances including gases (causing bloating) and small organic acids such as acetic, propionic and butyric acids. These irritate the mucosa and osmotically draw fluid into the lumen. In severe cases, the clinical picture of watery, explosive diarrhoea with a distinctive organic acid odour ensues.

In patients who are already predisposed to gastro-intestinal symptoms (malabsorption associated with celiac disease, inflammatory bowel disease and possibly irritable bowel syndrome), even relatively small amounts of additional bacterial metabolites may produce prompt worsening of symptoms.

## What conditions may be diagnosed with breath testing after a sugar load?

### Intestinal disaccharidase deficiency

Intestinal lactase deficiency is not uncommon, both as a long term variant of normal, and frequently in children as a short term complication of gastro-enteritis. This produces a dose-dependent intolerance of lactose (milk sugar).

Specific sucrase/isomaltase deficiency is a rare genetically-determined condition in which the patient can tolerate lactose but cannot digest cane sugar. Because it is rare, it often causes diagnostic confusion.

More generalised disaccharidase deficiency frequently complicates conditions which cause generalised mucosal injury such as celiac disease. The intestinal lactase is generally present in the lowest concentration on the surface of the duodenal and jejuna mucosa, and as a result, patients frequently recover lactose tolerance last, but with mucosal inflammation, all disaccharidase activities may be lost. This leads to generalised sugar intolerance.

The “gold standard” for diagnosing these conditions is endoscopic intestinal biopsy with fresh tissue sent for disaccharidase analysis (as well as for histological examination). This approach does have the advantage of allowing direct visual and histological examination of the mucosa, but is often seen as unnecessarily invasive and costly.

A breath hydrogen/methane test after administration of the appropriate sugar load (typically initially lactose) is usually sufficient to determine abnormality, and has the additional advantage that it can be easily repeated at a later date if required to document recovery.

The only limitation on performance of this test is in children (in whom the diagnosis of lactose intolerance is frequently considered). A child must be “capable of blowing into a party balloon” for the collections to be successful. In children, performance of faecal reducing substance analysis with sugar chromatography if elevated is likely to clarify the clinical scenario.

### Bacterial overgrowth

Bacterial overgrowth in the upper small intestine is a relatively infrequent condition, but is readily diagnosed with breath analysis after sugar loading. The bacteria gain access to unabsorbed sugar and produce their characteristic biochemical marker much sooner after the dose than we expect for disaccharidase deficiency. Indeed, the abnormal peak is typically seen at 15 minutes, well before intestinal transit time would allow unabsorbed sugar to reach colonic bacteria.

I generally advise commencing with a lactose load – we can generally differentiate lactase deficiency from bacterial overgrowth based on the time of the abnormal response, but many doctors prefer glucose loading for duodenal bacterial overgrowth and lactulose for overgrowth further down the GI tract.

### Functional” gut disorders

Functional gut disorders such as irritable bowel syndrome (IBS) are among the most common complaints seen in primary medical care. It is important to separate organic disturbances such as bacterial overgrowth and sugar maldigestion/malabsorption from IBS.

The literature abounds with references to “FODMAPs” (fermentable oligo-, di- and mono-saccharides, and polyols). These normal dietary constituents are relatively poorly handled by all subjects, but it appears that a significant percentage of the population are particularly sensitive to the effects. In some cases, this is because there is an underlying inflammatory bowel disease or more generalised disorder of digestion and absorption (such as celiac disease).

We all expect to develop discomfort if we consume too much stone fruit, prunes, onion, etc., and this is because we lack the intestinal enzymes to adequately break the contained saccharides down to enable their absorption. However some patients are unusually susceptible to the effects of the colonic bacterial products.

Fructose is a special case. In nature, our most abundant dietary form of fructose is in combination with glucose as the disaccharide sucrose (cane sugar). All people have an intestinal transporter which efficiently absorbs fructose with glucose. However there is a second intestinal transporter which absorbs fructose without glucose, and unfortunately, almost half of the normal population has a relative deficiency of this transporter. When affected individuals consume large amounts of food-stuffs or beverages which contain excessive fructose relative to glucose (corn starch, some fruit, some alcoholic beverages, etc), they are incapable of absorbing the excessive fructose and so when it reached the colonic bacteria, typical symptoms develop.

## The Test

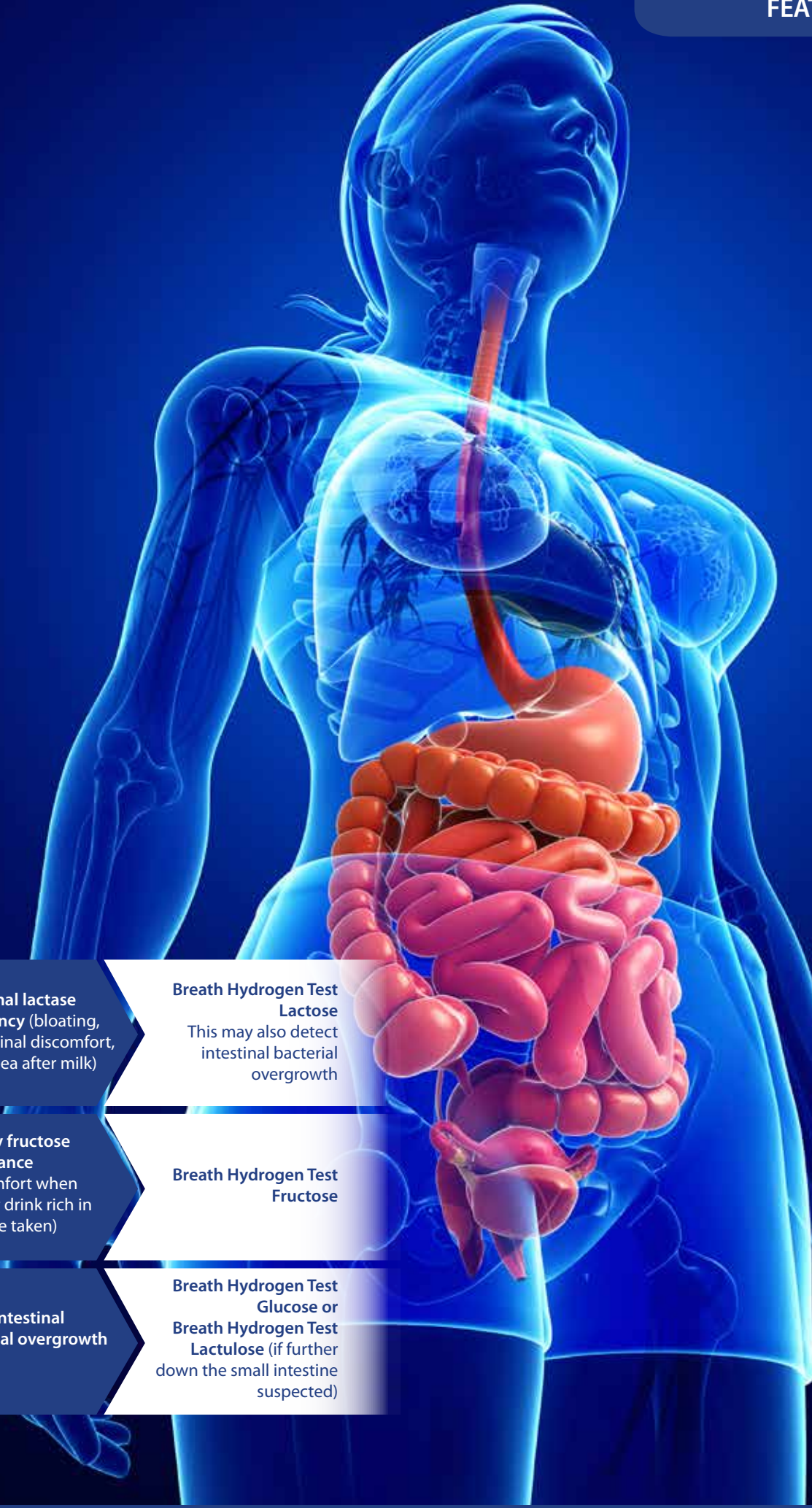
The definitive test requires administration of a standard dose of a single sugar. Serial samples are collected over a period of time. This test incurs an out-of-pocket expense for the patient as the Medicare rebate does not cover the cost of testing.

## Diagnostic Approach

1. Intestinal lactase deficiency is common. If the presentation includes the symptoms listed in Table 1 (bloating, abdominal discomfort etc.), request ‘Breath Hydrogen Test - Lactose’. This will also detect some patients with small intestinal bacterial overgrowth.
2. Dietary fructose intolerance is also common but only declares itself when food or drink relatively rich in fructose is taken. If the symptoms are more suggestive of fructose intolerance, or if the symptoms are problematic and lactase deficiency has been excluded, request ‘Breath Hydrogen Test - Fructose’.
3. Small intestinal bacterial growth is not common, but can be difficult to recognise. If suspicious, order ‘Breath Hydrogen Test - Glucose’ or if you suspect bacteria further down the small intestine, ‘Breath Hydrogen Test - Lactulose’.

## In summary:

|                  |   |
|------------------|---|
| <b>Lactose</b>   | Suspected lactase deficiency but will also detect upper small bowel bacterial overgrowth  |
| <b>Sucrose</b>   | Suspected sucrose/isomaltase deficiency – patients with “atypical” sugar intolerance  |
| <b>Fructose</b>  | Symptoms after ingestion of corn starch, honey, beer, etc.  |
| <b>Glucose</b>   | Suspected small intestinal bacterial overgrowth   |
| <b>Lactulose</b> | Strongly suspected small bowel bacterial overgrowth if normal response to glucose (bacterial population further down the small bowel) |
| <b>Sorbitol</b>  | Polyol intolerance (stone fruit, sugar-free sweets, chewing gum), irritable bowel syndrome  |



|   |   |
|---|---|
| <b>Intestinal lactase deficiency</b> (bloating, abdominal discomfort, diarrhoea after milk) | <b>Breath Hydrogen Test Lactose</b><br>This may also detect intestinal bacterial overgrowth                               |
| <b>Dietary fructose intolerance</b> (discomfort when food or drink rich in fructose taken)  | <b>Breath Hydrogen Test Fructose</b>  |
| <b>Small intestinal bacterial overgrowth</b>  | <b>Breath Hydrogen Test Glucose or<br/>Breath Hydrogen Test Lactulose</b> (if further down the small intestine suspected) |



## Tumour Molecular Profiling

### Unlocking personalised cancer treatment

Tumour molecular profiling is now a key component of tailored management for oncology patients. Molecular characterisation, along with other more traditional tests, provides a foundation for disease classification as well as prognostic and therapeutic decision-making.

#### Why Profile?

Our standalone tumour genetic profiling utilises the Illumina TruSight Tumour panel, a targeted gene sequencing panel, which detects hundreds of DNA variants (hotspot mutations) in 26 solid tumour-associated genes.

Simultaneous testing for hundreds of DNA variants in multiple genes;

- ✓ saves time
- ✓ avoids the need for multiple tests
- ✓ identifies correct treatment pathways more quickly

The genomic regions included are designed to be ideally applied to melanoma, lung, colon, gastric and ovarian malignancies, and allow confident detection of DNA variants occurring above a 3% frequency.

The 26 genes and regions included in the profile have been selected through consultation with the College of American Pathologists, the National Comprehensive Cancer Network guidelines, and from the results of late stage clinical trials. Genomic Diagnostics is NATA-accredited for next generation sequencing, enabling eligible patients to access this service at no cost.



#### For More Information Contact:

Dr Melody Caramins, Genetic Pathologist or  
Nicole Chia, Genetics Manager on **07 3121 4444**.

[www.qml.com.au](http://www.qml.com.au)

[www.genomicdiagnostics.com.au](http://www.genomicdiagnostics.com.au)

|                    |  |
|--------------------|--|
| Test               | Tumour molecular profiling.  |
| Genes              | AKT1, ALK, APC, BRAF, CDH1, CTNNB1, EGFR, ERBB2, FBXW7, FGFR2, FOXL2, GNAQ, GNAS, KIT, KRAS, MAP2K1, MET, MSH6, NRAS, PDGFRA, PIK3CA, PTEN, SMAD4, SRC, STK11, TP53, selected exons.   |
| Disease            | Ideally suited for molecular profiling of lung, melanoma, colon, gastric and ovarian malignancies.   |
| Method             | Massively parallel sequencing.   |
| Notes              | Samples which do not meet quality control criteria for massively parallel sequencing will undergo limited testing by PCR for those regions of EGFR, KRAS, BRAF and NRAS as considered most clinically appropriate. This test does not detect large rearrangements (such as chromosomal translocations), large deletions or insertions. |
| Specimen           | 8-12 FFPE slides.  |
| Turn Around Time   | Standard Service: 7 working days.  |
| Required Documents | 1. Test request form (completed by a specialist or consultant physician to be eligible for Medicare rebate).<br><br>2. Payment form (for private non-MBS eligible patients only; please contact laboratory).   |
| Price              | Bulk-billed for patients fulfilling Medicare eligibility criteria. Please contact us about private, public and contractual pricing arrangements.   |

## The next step in diabetes management

QML Pathology is pleased to announce our extensive pathology services now include 1,5-anhydroglucitol (1,5-AG) testing to assist in the assessment and management of patients with diabetes mellitus.

### 1,5-AG testing:

- ✓ measures 1,5-anhydroglucitol, a glucose-like sugar found in most foods
- ✓ reflects average maximum blood glucose over the previous two weeks
- ✓ assesses amount of time glucose exceeds the renal threshold
- ✓ reveals recent deterioration in glucose control
- ✓ records glycemic variability so you can personalize diabetes therapy to reach target A1Cs.

### How to Order 1,5-anhydroglucitol:

The test is performed on serum and no pre-test preparation is required. Simply request "1,5-AG" or "Glycomark". Currently there is no Medicare rebate for 1,5-AG and as such, QML Pathology will charge an out-of-pocket fee of \$40.00\*.

\*Prices are correct at time of print and are subject to change.

## QML Pathology Warfarin Care Clinic Online Registrations

The QML Pathology Warfarin Care Clinic provides support to referring doctors through the monitoring and management of patients undergoing Warfarin therapy.

QML Pathology has a dedicated team of specialist pathologists, medical practitioners and health professionals who are responsible for providing educational and informative material to patients to assist with their Warfarin treatment.

A reliable reminder and management system is also implemented to monitor when patients are overdue for tests, or when they receive abnormal test results.

**For doctors who are registered with QML Pathology please complete the following steps:**

1. Visit [www.qml.com.au](http://www.qml.com.au)
2. Log in to your Doctor Dashboard account
3. Select Warfarin Services
4. Select 'Click here to register a Warfarin patient'
5. Complete our interactive Warfarin Patient Registration Form.

Once patient registration has been approved by the Warfarin Care Clinic you will receive the patient's Registration Number which is to be included on the initial request form. The form should state 'INR – New QML Control'.

Monitoring will commence 24 – 48 hours after registration approval and can begin on any day Monday – Thursday.

*It is imperative all doctors ensure they provide the Warfarin Care Clinic with information on any changes in patient's medication, or changes in patient's medical history, as this could have important implications upon dosages.*

- ✓ 100% Bulk Billed



# Education wrap up

QML Pathology has been very active once again in the field of continuing education throughout 2015, hosting the highest quality medical education to city and rural areas of Queensland and NSW for the medical community.

Continuing education, since its inception for QML Pathology in 1992, relies on the expertise of our leading medical specialists and expert pathologists to present the most up-to-date and relevant medical developments to the community.

Our programs have been widely recognised within the medical community and governing bodies for offering many practitioners relevant, topical, pertinent and varied educational programs for General Practitioners (GPs), Practice Nurses and Specialists which fulfil accreditation criteria for respective Colleges.

Our events this year cover Obstetric issues, Crohns Disease, Abnormal Uterine Bleeding, Skin Cancer, upcoming Cytology changes as well as Specialists events in Tumour molecular profiling just to name a few.

We appreciate your feedback and are constantly evaluating our activities to improve our education for our community. If you have any feedback to assist us with this, please do not hesitate to contact us at Education & Marketing QML Pathology or e-mail [education@qml.com.au](mailto:education@qml.com.au).

In addition, the QML Pathology Clinical Audits in both Skin and Cytology continue to grow in popularity; reporting and statistical information is highly valued by General Practice and Specialists alike. QML Pathology Cytology Pap Smear & Surgical Skin Audits are approved and meet College requirements.

Sign up now utilising the registration forms below or via

[http://www.qml.com.au/Portals/0/PDF/Forms/QML\\_SkinAuditRegoForm\\_976.pdf](http://www.qml.com.au/Portals/0/PDF/Forms/QML_SkinAuditRegoForm_976.pdf)

for the skin audit and

<http://www.qml.com.au/lamaDoctor/CPDandEducation/CytologyPapSmearAudit.aspx>  
for the pap audit to ensure your QI activity.

Please remember for the 2014–16 QI&CPD triennium the RACGP has introduced a quality improvement (QI) requirement for GPs.

At least one Cat 1 activity must be approved for the QI criteria.



## Surgical Skin Audit Registration

Please complete registration details & return via courier, fax (07) 3121 4478 or email [education@qml.com.au](mailto:education@qml.com.au)



### DOCTOR INFORMATION

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

QML Dr. Code (if known): \_\_\_\_\_ RACGP QI&CPD/ACRRM No.: \_\_\_\_\_

HAVE YOU INCLUDED  
YOUR RACGP QI&CPD/  
ACRRM NUMBER?

### PRACTICE INFORMATION

Practice Name / Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Practice Email Address: \_\_\_\_\_





## DOCTOR INFORMATION

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

QML Dr. Code (if known): \_\_\_\_\_ RACGP QI&CPD/ACRRM No.: \_\_\_\_\_

HAVE YOU INCLUDED  
YOUR RACGP QI&CPD/  
ACRRM NUMBER?

## PRACTICE INFORMATION

Practice Name / Address: \_\_\_\_\_

Practice Email Address: \_\_\_\_\_

Changes to the National Cervical Cancer Screening program will begin in **May 2017**. Until then all women, vaccinated and unvaccinated, should continue to have regular pap smears.

**QML Pathology Bulk Bill all Pap Smears\*.**

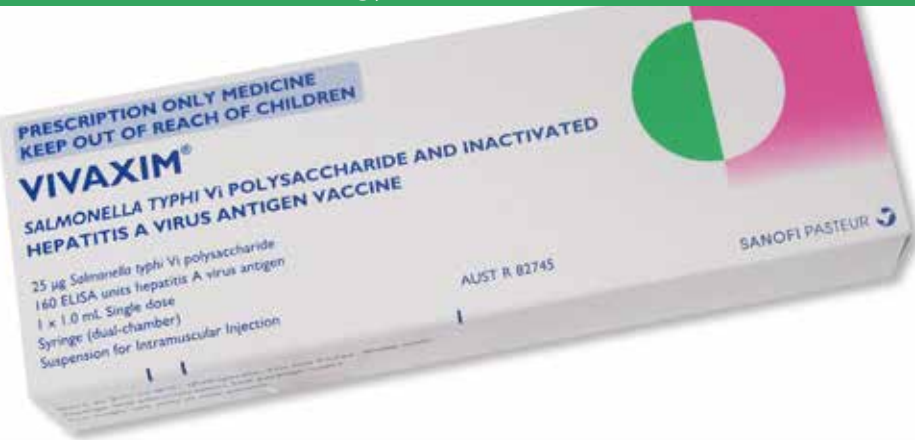
\* Subject to Medicare eligibility and guidelines.



# VIVAXIM DEAL

Order from QML Pathology Vaccines on (07) 3121 4523 or Fax (07) 3121 4944\*

WHILE STOCKS LAST



**BUY 10  
GET 1 FREE**  
\*Next day delivery

 **QML Pathology | Vaccines**

**Australia's No. 1 Vaccine Distributor**

## Collection Centre Updates

### NEW COLLECTION CENTRES

**MEDPLUS  
STRATHPINE**..... (07) 3205 2453

Shop 2  
130-134 Gympie Rd  
Monday to Friday  
09:00 – 13:00

#### MARSDEN

Shop 12  
1-13 Fifth Ave  
Monday to Friday  
08:00 – 13:00

#### ROBINA WATERFRONT PLACE

Inside Good Health Medical Centre  
1290 Logan Rd  
Monday to Friday  
08:30 – 13:30

### SAMFORD VALLEY....(07) 3289 1920

(Inside Samford Valley Medical  
Centre)  
26 Station St  
Monday to Friday  
08:00 – 12:00

#### SUNNYBANK STAR MEDICAL

(Inside Star Medical)  
302 Mains Rd  
Monday to Friday  
08:30 – 13:30

### EXTENSION OF HOURS

**MARGATE** ..... (07) 3889 4090  
(Inside Beach Medical Centre)  
135 Margate Pde  
Monday to Friday  
08:00 – 16:30

### NOW OPEN SUNDAYS AND LATE THURSDAY NIGHTS

#### TAIGUM..... (07) 3865 4795

Taigum Central Shopping Centre  
Cnr Beams & Church Rds  
Mon, Tues, Wed, Fri: 6.30am–5.00pm  
Thurs ..... 7.30am–7.00pm  
Saturday:..... 7.00am–11.30am  
Sunday: ..... 8.00am–11.00am

#### NORTH LAKES WESTFIELD ..... (07) 3204 6792

Mon, Tues, Wed, Fri: 7.30am–4.00pm  
Thurs ..... 7.30am–7.00pm  
Saturday:..... 7.30am–11.30am  
Sunday: ..... 8.00am–11.00am



# QML Pathology Specialist Centres



## Session times now available!

- ✓ Spacious, fully furnished consulting rooms (13-15m<sup>2</sup>)
- ✓ On-site pathology collection centre
- ✓ Modern facilities
- ✓ On-site free parking
- ✓ Ideal location within vibrant medical precinct
- ✓ Shared waiting room and professional reception team.



## North Lakes Specialist Centre

First Floor, 10 Endeavour Boulevard  
North Lakes, QLD 4509

For more information, please contact:

**Katherina Brown**

North Lakes Specialist Centre

M: 0478 882 050

E: [katherina.brown@qml.com.au](mailto:katherina.brown@qml.com.au)



## Pacific Private Specialist Centre

Suite 2 level 5, 123 Nerang Street  
Southport, QLD 4215

For more information, please contact:

**Adwyn Awadh**

Pacific Private Specialist Centre

M: 0423 559 692

E: [adwin.awadh@qml.com.au](mailto:adwin.awadh@qml.com.au)



**Dr Csilla Novak MBBS**, would like to announce the opening of her new Cosmetic Medicine practice, the Elysium Skin Centre.

As a former General practitioner with training in dermatology, Csilla has over 20 years experience in skin and facial rejuvenation, and laser therapy.

This centre is an accredited laser facility, equipped with three resurfacing lasers, Cutera IPL machines and the latest in fractionated RF machines to cover a wide range of skin conditions.

Free on-site undercover parking is available off Walden lane for clients.

2-7/17 Bowen Bridge Rd,  
Herston Qld 4006

P: (07) 3214 1400  
E: [info@elysiumskincentre.com.au](mailto:info@elysiumskincentre.com.au)  
[www.elysiumskincentre.com.au](http://www.elysiumskincentre.com.au)



**Dr Kate DeAmbrosio BMed. (Hons) FACP Specialist Dermatologist**, has commenced practice at Valley Plastic Surgery.

Dr DeAmbrosio completed her Bachelor of Medicine (Honours) at the University of Newcastle in 2003 and was awarded Fellowship with the Australian College of Dermatologists as a Specialist Dermatologist in 2014.

Kate is an award recipient of the Ken Paver medal for the Dermatology for her excellence of clinical knowledge.

Kate is available for consultations covering all areas of Dermatology. Her specific areas of interest and expertise however include paediatrics, melanoma and non-melanoma skin cancer.

Valley Plastic Surgery  
51 Ballow Street, Fortitude Valley

P: (07) 3488 8118  
F: (07) 3488 8119  
E: [info@valleyplasticsurgery.com.au](mailto:info@valleyplasticsurgery.com.au)



**Life Resolutions** have opened a new branch in Carindale.

Life Resolutions is a psychology-centric organisation that provides support and treatments for a range of psychological disorders and conditions.

Principal psychologist Angela Dillon has almost 30 years experience in psychology and has assisted many clients with a variety of psychological issues. Angela ensures all clients receive caring, compassionate and individualised treatment.

Life Resolutions Carindale is open Monday to Friday 9.00am to 8.00pm and Saturday 9.00am to 2.00pm.

P: 1300 135 147  
F: (07) 33952446  
[adillon@liferesolutions.com.au](mailto:adillon@liferesolutions.com.au)

Suite 6, Meadowlands Shopping Centre  
82 Meadowlands Road  
Carindale, QLD 4152.  
[www.liferesolutions.com.au/carindale](http://www.liferesolutions.com.au/carindale)



**Dr Raj MBBS, FRACP**, completed his MBBS in 1997 and has trained extensively in various tertiary hospitals throughout India and the United Kingdom.

Dr Raj has extensive experience in managing a wide-range of Cardiology conditions including: heart failure, acute coronary syndromes, arrhythmias and echocardiography, among many others.

Dr Raj is available for consultation at QML Pathology Specialist rooms located at the Tweed Day Surgery and Specialist centre as well as rooms in Murwillumbah and Kingscliff.

To arrange an appointment, contact Dr Raj below.

Tweed Heads and Murwillumbah  
P: (07) 5536 4195  
F: (07) 5599 4209  
  
Kingscliff  
P: (02) 6674 3266  
F: (02) 6674 3300



**Consultant Endocrinologist Dr Samantha Donaldson MBBS**, has commenced practice at Spring Hill Endocrinology, offering consultation and

inpatient care at St Andrews War Memorial Hospital.

Samantha completed her medical degree with Class 1 Honours at The University of Queensland, and undertook Physician training at the Royal Brisbane and Women's Hospital (RBWH) and Mater Adults Hospital.

Her special interests include: osteoporosis and the endocrine conditions associated with chronic kidney disease.

Samantha is currently able to see new patients within 1-2 weeks. Referrals can be made via email, fax or Medical Objects.

P: (07) 3309 3077  
E: [reception@endo advice.com.au](mailto:reception@endo advice.com.au)



**General Ophthalmic Surgeon Dr Anil Sharma FRANZCO** has commenced comprehensive Ophthalmology services at Central Lakes Eye Clinic in the Caboolture Private Hospital.

After graduating from Medical School in 1988, Dr Sharma completed his Post Graduate training in Ophthalmology.

Anil completed his FRANZCO in 2005 and was awarded Fellowship of the Royal Australian & New Zealand College of Ophthalmologists in 2006.

To arrange an appointment, please contact:

Caboolture Private Hospital  
Suite 2/87 McKean Street  
Caboolture QLD 4510

P: (07) 5432 3479  
F: (07) 3319 6507  
E: [reception@centrallakeseyeclinik.com](mailto:reception@centrallakeseyeclinik.com)  
[www.cabooltureprivate.com.au](http://www.cabooltureprivate.com.au)



**Dr Suyog Suresh Kulkarni DNB (Orthopaedics) FRACS** has extended his private practice and will be consulting from Caboolture Private

Hospital, Strathpine Medical Centre and Peninsula Private Hospital.

Dr Kulkarni is a specialist in Orthopaedics at the Redcliffe Hospital. Suyog completed his Orthopaedic training in India before relocating to Australia in 2003.

Dr Kulkarni has over 20 years experience in Orthopaedics with a special interest in trauma, hip and knee, shoulder arthroplasty, foot, ankle and arthroscopy.

T: (07) 5495 9440  
F: (07) 5495 9546  
M: 0415 133 857



**Dr Nelson Gonzalez FRANZCOG, MBBS, BScApp (Biotech) Hons** is an Obstetrics and Gynaecology specialist with over a decade of experience in women's

health.

Nelson's main interests are general and high risk obstetrics as well as advanced gynaecological endoscopic surgery.

Dr Gonzalez manages a range of conditions including: pelvic pain, abnormal uterine bleeding, pelvic organ prolapsed and urinary incontinence.

To arrange an appointment, please contact:

Sunnybank Centre for Women  
5/171 McCullough Street

P: 07 3345 4947  
F: 07 3423 7215  
E: [reception@scfw.com.au](mailto:reception@scfw.com.au)  
[www.sunnybankprivatehospital.com.au](http://www.sunnybankprivatehospital.com.au)



**Dr Joseph Jabbour BSc Biology, MBBS, FRANZCOG** is an Obstetrics and Gynaecology specialist with a decade of experience in the care

of both low and high risk pregnancies.

Dr Jabbour's skills facilitate a broad range of management options for conditions including: endometriosis, pelvic organ prolapse, urinary incontinence, fertility, abnormal pap smears, and menopause.

Joseph has a special interest in medical obstetrics including diabetes and obesity in pregnancy.

To arrange an appointment, please contact:

Sunnybank Centre for Women  
5/171 McCullough Street

P: 07 3345 4947  
F: 07 3423 7215  
E: [reception@scfw.com.au](mailto:reception@scfw.com.au)  
[www.sunnybankprivatehospital.com.au](http://www.sunnybankprivatehospital.com.au)

**Dr Joanna Loftus** has moved from her Sunnybank and Toowong rooms, and is now practising from:

Suite 52, Silverton Place  
101 Wickham Tce  
Brisbane QLD 4000

P: 07 3832 1899  
F: 07 3832 1799  
E: [reception@djmarshall.com.au](mailto:reception@djmarshall.com.au)

Jo is a consultant Psychiatrist with a wealth of experience in adult psychiatry in Australia and England.

Her special interests include: Psychotherapy and mental health difficulties in individuals with physical illness.



The Doctor's Noticeboard is a free service for medical practitioners.

If you wish to place a notice, please email a short, 50 word blurb to [info@qml.com.au](mailto:info@qml.com.au).



# Infectious Diseases Report

GEOGRAPHIC DISTRIBUTION - JUN 2015

| ORGANISM                                | Regions (as per key below) |            |            |           |           |          |            |           |            |            |            |            |            |            |             | TOTAL       |             |             |             |
|---|----------------------------|------------|------------|-----------|-----------|----------|------------|-----------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|
|   | 1                          | 2          | 3          | 4         | 5         | 6        | 7          | 8         | 9          | 10         | 11         | 12         | 13         | 14         | 15          | JUN         | MAY         | APR         | MAR         |
| Adenovirus (not typed)                  | 1                          | 6          | 6          | 1         |           |          | 13         |           | 7          | 2          | 17         | 4          |            | 2          | 3           | 62          | 56          | 43          | 53          |
| Adenovirus (typing pending)             |                            |            |            |           |           |          | 2          |           | 2          | 2          | 1          |            |            |            |             | 7           | 7           | 11          | 12          |
| Barmah Forest virus                     |                            | 1          |            |           |           |          | 1          |           | 1          |            |            | 2          |            |            |             | 5           | 12          | 24          | 47          |
| Bordetella pertussis                    | 4                          | 14         | 4          | 2         |           |          | 5          |           | 15         | 5          | 31         | 10         | 6          | 2          | 5           | 103         | 107         | 97          | 140         |
| Brucella species                        | 1                          |            |            |           |           |          |            |           |            |            | 1          | 1          |            |            |             | 3           | 1           | 3           | 4           |
| Campylobacter jejuni                    |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 0           | 0           | 0           |
| Chlamydia pneumoniae                    |                            |            |            |           |           |          | 1          |           |            |            |            |            |            |            |             | 1           | 1           | 1           | 0           |
| Chlamydia trachomatis, not typed        | 55                         | 91         | 33         | 29        | 4         |          | 68         |           | 54         | 30         | 116        | 48         | 17         | 23         | 32          | 600         | 834         | 733         | 911         |
| Coxiella burnetii                       | 1                          |            | 3          |           |           |          |            |           |            | 1          | 1          |            | 1          | 1          |             | 8           | 9           | 17          | 21          |
| Cryptococcus species                    |                            |            |            |           |           |          |            |           |            |            |            | 1          |            |            |             | 1           | 1           | 2           | 2           |
| Cytomegalovirus (CMV)                   | 2                          | 9          | 2          | 3         |           | 1        | 4          |           | 6          | 2          | 11         | 5          | 2          | 2          | 1           | 50          | 57          | 84          | 134         |
| Enterovirus - not typed                 |                            |            |            |           |           |          |            |           |            |            |            |            | 1          |            |             | 1           | 1           | 1           | 1           |
| Entamoeba histolytica                   |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 0           | 0           | 0           |
| Epstein-Barr virus (EBV)                | 2                          | 14         | 6          | 2         | 1         |          | 9          |           | 9          | 2          | 15         | 15         | 5          | 1          | 1           | 82          | 122         | 203         | 305         |
| Flavivirus unspecified                  | 2                          | 2          | 1          |           |           |          | 1          |           |            |            | 1          | 1          |            | 1          |             | 9           | 15          | 7           | 33          |
| Hepatitis A virus                       |                            |            |            |           |           |          |            |           |            |            | 1          |            |            |            |             | 1           | 2           | 4           | 9           |
| Hepatitis B virus                       | 7                          | 7          | 7          |           |           |          | 19         |           | 4          | 1          | 65         | 2          |            | 5          | 2           | 119         | 151         | 135         | 160         |
| Hepatitis C virus                       | 11                         | 36         | 21         | 6         | 1         |          | 26         |           | 30         | 7          | 80         | 19         | 13         | 16         | 14          | 280         | 375         | 325         | 392         |
| Hepatitis D virus                       |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 1           | 0           | 2           |
| Hepatitis E virus                       |                            |            |            | 1         |           |          |            |           |            |            |            |            |            |            |             | 1           | 1           | 2           | 0           |
| Herpes simplex Type 1                   | 7                          | 48         | 18         | 6         |           |          | 48         |           | 32         | 15         | 72         | 28         | 10         | 13         | 10          | 307         | 421         | 370         | 358         |
| Herpes simplex Type 2                   | 16                         | 28         | 4          | 4         |           |          | 21         |           | 10         | 6          | 42         | 23         | 2          | 2          | 7           | 165         | 229         | 193         | 236         |
| Herpes simplex virus - not typed        |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 0           |             | 0           |
| HIV-1                                   |                            | 1          | 1          |           |           |          | 2          |           |            |            |            |            |            |            |             | 4           | 6           | 11          | 13          |
| HTLV-1                                  |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 1           | 2           | 0           |
| Human Metapneumovirus                   |                            | 8          | 8          |           |           |          | 7          |           | 3          | 5          | 12         | 5          | 3          |            | 1           | 52          | 32          | 42          | 33          |
| Influenza A virus                       | 3                          | 15         | 6          |           |           | 2        | 18         | 2         | 10         | 3          | 34         | 3          | 4          | 3          | 2           | 105         | 115         | 104         | 174         |
| Influenza B virus                       | 3                          | 25         | 18         | 4         |           |          | 22         | 1         | 28         | 15         | 61         | 16         | 2          | 5          | 15          | 215         | 134         | 78          | 59          |
| Legionella pneumophila (all serogroups) |                            | 1          |            |           |           |          |            |           |            |            | 2          | 2          |            |            | 1           | 6           | 9           | 6           | 9           |
| Legionella species                      |                            |            |            |           |           |          |            |           | 1          |            | 6          | 1          |            | 1          |             | 9           | 14          | 12          | 21          |
| Leptospira species                      |                            |            |            |           |           |          |            |           |            |            |            | 1          |            |            | 1           | 2           | 3           | 1           | 0           |
| Measles virus                           |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 0           |             | 2           |
| Mumps virus                             |                            |            |            | 1         |           |          |            |           | 1          |            |            | 1          |            |            |             | 3           | 2           | 1           | 1           |
| Mycoplasma pneumoniae                   | 9                          | 113        | 61         | 15        | 4         |          | 90         |           | 113        | 33         | 208        | 109        | 26         | 20         | 39          | 840         | 1139        | 851         | 978         |
| Neisseria gonorrhoeae                   | 9                          | 11         | 1          | 1         |           |          | 8          |           | 1          | 1          | 8          | 6          |            | 1          | 3           | 50          | 54          | 82          | 56          |
| Parainfluenza virus                     | 1                          | 13         | 6          | 1         | 1         |          | 10         |           | 13         | 5          | 19         | 10         | 7          | 3          | 3           | 92          | 76          | 61          | 59          |
| Parvovirus                              | 1                          | 2          | 1          |           |           |          | 1          |           | 2          |            | 1          | 2          |            |            |             | 10          | 12          | 8           | 12          |
| Pneumocystis carinii                    |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 1           | 1           | 1           |
| Respiratory Syncytial virus             | 1                          | 21         | 14         | 1         |           |          | 33         |           | 38         | 12         | 46         | 30         | 21         | 8          | 8           | 233         | 357         | 425         | 330         |
| Rhinovirus (all types)                  | 4                          | 45         | 7          | 2         |           | 1        | 35         |           | 29         | 16         | 55         | 25         | 12         | 7          | 10          | 248         | 360         | 215         | 200         |
| Rickettsia - Spotted Fever Group        | 2                          |            |            |           |           |          |            |           | 1          |            |            | 2          |            |            |             | 5           | 4           | 2           | 5           |
| Ross River virus                        | 6                          | 6          | 6          | 4         |           |          | 12         |           | 5          | 3          | 10         | 8          |            | 3          | 6           | 69          | 219         | 412         | 1279        |
| Rubella virus                           |                            |            |            |           |           |          |            |           |            |            | 1          |            |            |            |             | 1           | 0           | 0           | 4           |
| Salmonella paratyphi A                  |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 0           | 0           |             |
| Salmonella paratyphi B                  |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 0           | 1           | 1           |
| Salmonella typhi                        |                            |            |            |           |           |          |            |           |            |            | 1          |            |            |            |             | 1           | 2           | 1           | 2           |
| Streptococcus Group A                   | 7                          | 4          | 6          |           |           |          | 5          | 54        | 8          | 2          | 12         | 6          | 5          | 2          | 2           | 113         | 143         | 89          | 122         |
| Toxoplasma gondii                       | 1                          | 1          | 2          |           |           |          | 1          |           | 1          |            | 1          | 1          |            |            | 1           | 9           | 17          | 7           | 6           |
| Treponema pallidum                      | 26                         | 6          | 4          | 3         | 12        |          | 33         |           | 6          | 7          | 31         | 5          | 3          | 12         | 2           | 150         | 187         | 194         | 202         |
| Trichomonas vaginalis                   | 17                         | 3          | 2          |           | 2         |          | 2          |           | 1          | 2          | 3          | 1          |            | 1          |             | 34          | 33          | 37          | 40          |
| Varicella Zoster virus                  | 12                         | 37         | 15         | 3         | 1         |          | 46         |           | 27         | 3          | 56         | 33         | 9          | 6          | 8           | 256         | 303         | 258         | 319         |
| Yersinia enterocolitica                 |                            |            |            |           |           |          |            |           |            |            |            |            |            |            |             | 0           | 0           | 0           | 0           |
| <b>TOTAL</b>                            | <b>211</b>                 | <b>568</b> | <b>263</b> | <b>89</b> | <b>26</b> | <b>4</b> | <b>543</b> | <b>57</b> | <b>458</b> | <b>180</b> | <b>426</b> | <b>149</b> | <b>140</b> | <b>177</b> | <b>4312</b> | <b>5626</b> | <b>5626</b> | <b>5156</b> | <b>6748</b> |

## REGIONS:

1 Cairns  
2 Gold Coast/Tweed  
3 Ipswich

4 Mackay  
5 Mount Isa  
6 New England  
7 North Brisbane

8 Northern Territory  
9 Redcliffe  
10 Rockhampton  
11 South Brisbane

12 Sunshine Coast  
13 Toowoomba  
14 Townsville  
15 Wide Bay/Burnett

FURTHER HISTORICAL CLINICAL DATA CAN BE OBTAINED BY CONTACTING MARKETING ON [INFO@QML.COM.AU](mailto:INFO@QML.COM.AU).