

News: from the Industry

Coke with Sterols Down Under?



Coca-Cola South Pacific has applied to FSANZ (Food Standards Australia New Zealand) to allow phytosterols to be added to fruit juice drinks. Coke has successfully marketed Minute Maid juice fortified with a plant sterol ingredient in the USA for several years.

Phytosterol esters and non-esterified phytosterols have been permitted in edible oil spreads and margarines in Australia since 2001 and Cognis recently received approval from the Australian Therapeutic Goods Administration (TGA) to use its anti-cholesterol, plant sterol ester ingredient, Vegepure, in food supplements. That approval means plant sterols can be used in supplements at doses between 2g and 5g (minimum of 1.5g) but come with warnings that state: "There is no benefit from taking more than 5g/day of phytosterols from all sources" and "Not suitable for pregnant or lactating women". Additionally, the European Food Safety Authority (EFSA) recently issued a positive opinion on a plant sterol-based health claim submission from Unilever and accompanied it with suggested text that stated: "Plant sterols have been shown to lower/reduce blood cholesterol. Blood cholesterol lowering may reduce the risk of coronary heart disease".

These decisions, and the Joint FAO/WHO Expert Committee on Food Additives (JECFA) Acceptable Daily Intake (ADI) for phytosterols, plus data on the cholesterol-lowering effects and safety of phytosterols when added to fruit juice drinks, will be taken into consideration for Australasian consumers by FSANZ. Coke's application for drinks with at least 20% juice to be fortified at a level of 4.5g per litre, includes a clinical study and scientific data that targets consumers who were "generally over the age of 40, with concerns about their blood cholesterol level". It is estimated more than 50% or 6.4 million Australians have high blood cholesterol.

Management of Intestinal Failure in Europe

Intestinal failure (IF) is the outcome of a number of gastrointestinal diseases characterised by significant reduction in functional gut mass. If not resolved patients often face long-term nutritional support. This study gathered information about how patients referred with intestinal failure are managed in specialised European centres.

A questionnaire was circulated in seven European countries via Michael Staun, Xavier Hebuterne, Jon Shaffer, Kent V Haderslev, Frederico Bozzetti, Marek Pertkiewicz, Ann Micklewright, Jose Moreno, Paul Thul, and Loris Pironi, representing the ESPEN-HAN working group to seek information about experience in treating patients with IF. The authors asked about clinical outcome, information about structure and organisation of the department, referral criteria, treatment procedures and guidelines.

Results: The experience of the 17 centres in six European countries treating patients was in the range 12-30 years. The total number of patients on HPN in all centres was 590. The number of patients referred to centres with IF during the period January to December 2000 was n = 882. Comparing all centres the following distribution among patients (median % (range %)) with regard to the endpoints were reported: Oral nutrition 32% (23-50%), enteral/tube feeding 11% (4-23%), HPN 36% (15-57%), lost to follow up 10% (0-35%), dead 9% (5-18%). No patients had an intestinal transplant.

In conclusion, the study provides information about how patients with IF are managed across Europe and indicates that treatment practice varies between countries.

Dyn Med. 2007; 6: 7

European Agency Rejects Probiotic Health Claim

Finnish dairy and ingredients supplier, Valio, has submitted additional data it believes may alter the negative opinion for a probiotic-related, gastro-intestinal health claim recently delivered by the European Food Safety Authority (EFSA).

Valio originally submitted two probiotic blends - each containing the same three strains - *Lactobacillus rhamnosus*, *L. rhamnosus* and *Propionibacterium freudenreichii* subspecies *shermanii* JS - plus a variable strain being either *Bifidobacterium animalis* subsp. *lactis* or *Bifidobacterium breve* 99. A randomised, placebo-controlled, double-blind, 5-month intervention trial with the probiotic mixtures (LGG MAX), found participants with irritable bowel syndrome (IBS) had improved IBS symptoms, as well as distension and bowel symptoms compared to controls. But there were no differences for abdominal pain, flatulence, rumbling, bowel habits or markers of inflammation.

EFSA's Panel on Dietetic Products, Nutrition and Allergies (NDA), found *Bifidobacterium breve* 99 was not sufficiently characterised as a health benefit-delivering nutrient. Moreover, the study did not accurately measure 'symptoms with a high variability', and was not sufficiently controlled for: 'confounders that could potentially have affected outcome', such as background diet and medications. The original petition was turned down by NDA on the grounds that causality was not sufficiently demonstrated and that: "the evidence is insufficient to establish a cause and effect relationship between LGG MAX and reduction of abdominal discomfort".

Vitamin C Found to Reduce Blood Pressure

Researchers in USA studied 242 black and white women aged 18-21 to determine whether blood levels of vitamin C influence blood pressure (BP). After taking into account race, body mass index, education, and dietary intake of fat and sodium, results showed that the systolic and diastolic BP of women with the highest levels of vitamin C in their blood was lower by 4.66 mmHg and 6.04 mmHg respectively, than in subjects with the lowest levels of vitamin C.

The researchers concluded: "The findings suggest the possibility that vitamin C may influence BP in healthy young adults. Since lower BP in young adulthood may lead to decreased incidence of age-



associated vascular events in older adults, further investigation of treatment effects of vitamin C on BP regulation in young adults is warranted."

Nutrition Journal. 2008;7:35.

EC Regulation on Gluten-free Foods

The European Commission is using the recently adopted Codex Standard for 'Foods for Special Dietary Uses for Persons Intolerant to Gluten' as the framework for the legislation on labelling of products for individuals who are gluten intolerant. This will then form the basis for national legislation in countries of the European Union.

The current proposal is that foods containing less than 20 parts per million (ppm) of gluten can be labelled as 'gluten free'. This also applies for pure,

uncontaminated oat products with a gluten level of less than 20ppm. Foods containing between 21 and 1,000ppm gluten can use the labelling term 'very low gluten'.

It appears likely that these labelling changes will be implemented within 3 years of adoption of the new legislation. www.cdrc.org.uk

“Sports Supplements Mostly Ineffective,” say Dietitians



A new set of nutrition guidelines by sports dietitians says most supplements won't help athletic performance. About 90% of elite athletes and countless amateur sports people in New Zealand take dietary supplements and dietitians advise they could be wasting their money.

The New Zealand Dietetic Association (NZDA) position paper was co-authored by Sports Dietitians Ien Hellemans, Lea Stening and Christine King with Sports Scientist Dr Nancy Rehrer, and is available on-line from: www.interscience.wiley.com/journal/121372719/issue

Ien Hellemans from the Department of Human Nutrition at the University of Otago, said: “Increasingly, athletes are looking to nutrition to give them a performance edge but unfortunately there's a lot of misinformation with dietary supplements. This authoritative guide will dispel nutrition myths and promote an evidence-based approach to sport and exercise nutrition.”

Sports supplements are often promoted using emotive and anecdotal claims, with testimonials not based on scientific evidence. Some supplements can be useful in specific situations, but for most there is little evidence of performance enhancement. In fact, research has found that up to 25% of the dietary supplements used by athletes contain prohibited substances which could lead to a positive doping result and pose a health risk.

“Sports dietitians have the expertise to advise athletes wisely on the use of dietary supplements, in addition to tailoring optimal food, nutrition and hydration plans to maximise performance and recovery. We translate the most up-to-date sports science and nutrition knowledge into practical advice to our elite athletes, including the Olympic and Commonwealth games teams, the All Blacks, the Silver Ferns and other national teams.” said Hellemans.

CoQ10 and Ubiquinol Supplements

Coenzyme Q10 (CoQ10), also known as ubiquinone, is a naturally occurring anti-oxidant compound and is used for energy production within cells. It is manufactured in the heart, liver, kidney and pancreas. The body normally produces sufficient CoQ10, although some medications such as statins may interfere with this process and CoQ10 levels in the body may decline with age and heart disease. Only small amounts of CoQ10 are available from food, mainly beef and chicken. Consequently, dietary supplements are the most common way to increase CoQ10 levels.

No government agency in the USA is responsible for routinely testing CoQ10 or ubiquinol products for their contents or quality. ConsumerLab Inc. recently evaluated thirty-nine supplements to determine whether they contained the amounts of CoQ10 stated on their labels. All but one of the products tested were found to contain their labelled amounts of CoQ10

and/or ubiquinol. Healthy America Coenzyme Q10 provided only 86.7% of its claimed 150 mg of CoQ10, despite a quality guarantee and “cGMP” claim – suggesting that it was made according to the FDA's good manufacturing practices for dietary supplements.

Although most products passed testing, it is important to note that the amount of CoQ10 or ubiquinol

across products ranged from 22 mg to as much as 600 mg. It is important, therefore, that users determine the proper dose for their intended use rather than rely on a product's suggested serving size. Switching from a low dose to high dose product, or vice versa, may affect the efficacy and side-effects associated with use of CoQ10.

Connection between Obesity and Sleep Apnea Questioned

According to reports published in the February issue of the American Journal of Respiratory and Critical Care Medicine, insulin resistance, liver disease and an inactive lifestyle were all found to be linked with breathing abnormalities that many people suffer while sleeping, regardless of the individual's weight.

One study found a strong tie between the body's inability to metabolise glucose and sleep-disordered breathing (SDB) or other breathing abnormalities while sleeping. “Our research tells us that SDB is characterised by multiple physiological deficits that increase the predisposition for type 2 diabetes mellitus,” notes study leader Dr Naresh Punjabi at Johns Hopkins University School of Medicine.

A second study from Johns Hopkins Asthma and Allergy Center found the lack of oxygen that occurs during obstructive sleep apnea (OSA) contributed to liver problems which increased proportionally with the severity of the breathing abnormality. “Our data suggest that patients with OSA and severe nocturnal hypoxemia should be screened for liver disease, and,

conversely, patients with liver disease should be screened for OSA,” says lead researcher Dr Vsevolod Polotsky.

In a third study, it was determined that physical inactivity, such as sitting or standing for long periods of time, can cause fluid retained in the legs during the day to become redistributed to the upper body while sleeping. Dr Douglas Bradley, Director of the Centre for Sleep Medicine and Circadian Biology, University of Toronto, explains: “An important implication of our observations is that sedentary living may predispose to OSA, not only by promoting obesity but also by causing dependent fluid accumulation in the legs, which can shift to the neck overnight. Therefore, it is plausible that if some of the displaced fluid reached the neck, it may predispose to upper airway constriction.”



These discoveries may help explain why 40 percent of people with sleep apnea are not overweight and why exercising may help reduce sleep-disordered breathing, even when there is no weight loss.



Complete Nutrition Australasia Welcomes Members of The Nutrition Society of New Zealand

The Nutrition Society of New Zealand is an organisation of qualified, practising health professionals, scientists and educators with a range of backgrounds who are bound by a shared interest in nutrition. NSNZ aims to bring together members interested in researching, applying and promoting sound nutrition. NSNZ promotes the science of nutrition, particularly the role of nutrition in growth and development, health and well-being in humans and animals.

Members of NSNZ include human and animal nutritionists, dietitians and health educators, clinicians and health professionals, food technologists and food scientists, vets and animal scientists, academics, teachers and students. Members are bound by a code of ethics.

The aims of NSNZ are:

- To promote sound, ethical, safe and effective research in nutritional science

- To develop sound practice in nutrition for public good
- To effectively communicate the benefits of good nutrition
- To provide foster discussion and exchange information on nutrition related subjects and provide a forum for discussion
- To promote professional development of members

The annual scientific meeting is the national forum for members to report

on and discuss research findings. The 2008 ASM with the theme ‘To Eat or not to Eat’ was held in December at the Cotswold Hotel Christchurch. At the AGM the membership elected Dr Jane Coad from Palmerston North as new President of the Society.

Presentations and abstracts of posters presented at the ASM are published annually in the Proceedings of the Nutrition Society of New Zealand.

Website: www.nutritionssociety.ac.nz



Colour me Low

Australian children are consuming low levels of food colours, according to a survey commissioned by FSANZ. Chief Scientist, Dr Paul Brent said the results are very positive and indicate that colours are not being used above maximum permitted levels, or at levels that would pose a risk to consumers. This analytical survey quantified actual levels of all permitted synthetic colours and two natural colours, annatto and cochineal/carmine in foods and beverages in order to accurately estimate dietary exposure and assess the potential risk to human health for Australians.

“Concentrations of added colours in foods in Australia are mostly less than 25% of the maximum permitted levels and estimated dietary exposures to all permitted synthetic food colours were less than 10% of the Acceptable Daily Intake even for high consumers of added food colour”.

Australian children are also consuming food colours, such as tartrazine, at much lower levels than those used in the UK Southampton study, which found evidence that mixtures of certain colours and sodium benzoate affected the activity and attention of children. “FSANZ does recognise that adverse reactions to foods and food additives occur in a small proportion of the population. These reactions are not the same as allergies but may include rashes and swelling of the skin, irritable bowel symptoms, behavioural

changes in children and headaches,” states the report.

Synthetic and natural colours are routinely added to food and beverages as a visual cue for quality, to induce the perception of flavour and to meet consumer expectations. They cannot be included in foods unless they are approved by the Australia New Zealand Food Standards Code. Food additives must be identified on the label by their name or code number and FSANZ have found very good consistency with labelling requirements. Parents can use

food label information to identify additives in their child’s diet, but it should not be assumed that simply taking these additives out of a child’s diet will eliminate symptoms. “FSANZ has commenced dialogue with food industry bodies on the current and future uses of synthetic and natural colours in foods,” Dr Brent concluded. The full survey report can be found on the FSANZ website at http://www.foodstandards.gov.au/_srcfiles/Colours%20Survey_Final%20Report%2022%20Oct%2008%20_2_.pdf

Who’s Who in Nutrition



Emma Ridley is the new AUSPEN/ANZIC-RC Nutrition Research Fellow with responsibility for the management and development of critical care nutrition research programs. She has a particular interest in critical care nutrition and continues to work in clinical dietetics at the Alfred Hospital, Melbourne, Australia.

During her five years at The Alfred, Emma has contributed to various quality and research projects. Some of these include the development of a fasting protocol to improve trauma patient outcomes post theatre and a research study to investigate the prevalence of metabolic syndrome in HIV positive individuals. Currently she is analysing the data returns from the Australasian Audit of Severe Acute Pancreatitis (ASAP) feeding study. Emma is a registered Accredited Practising Dietitian with the Dietitians Association of Australia and a current member of AuSPEN and ESPEN. She is currently undertaking a Masters of Public Health and hopes to further contribute to critical care nutrition through research in this field.

Human Microbiome Project

The USA National Institutes of Health (NIH) has announced the official launch of the Human Microbiome Project, a collective of the genomes of all microorganisms present in or on the human body. A rich source of these organisms is the human colon.

Initially, researchers will sequence 600 microbial genomes, completing a collection that will total some 1,000 microbial genomes and providing a resource for investigators interested in exploring the human microbiome. Other microbiological genomes are being contributed to the collection by individual NIH institutes and internationally funded projects. Researchers will then characterise the microbial communities in samples taken

from healthy human volunteers, even for microbes that cannot be grown in laboratory. The samples will be collected from 5 body regions, known to be inhabited by microbes: the digestive tract, the mouth, the skin, the nose and the female urogenital tract. Projects will subsequently be funded to sample microbiomes from volunteers with specific diseases to allow researchers to correlate the relationship between changes in a microbiome at a particular

body site and a specific illness. The Human Microbiome Project will also monitor and support research on the ethical, legal and social implications of the research. Areas of focus include clinical and health implications of using probiotics, potential forensic uses of microbiome profiles, bioterrorism and biodefence applications, the application of new technologies from the project, and patenting and privacy issues. www.nih.gov.

Only Drugs can Help Weight Loss

Food supplements targeting weight loss do not have adequate efficacy substantiation, are ineffective and misleading for consumers, claims a peer-reviewed BMJ editorial by Mike Lean, Professor of Human Nutrition at the University of Glasgow, who asserts the only products that are effective for aiding weight loss are drugs. “Of hundreds of products on sale, only appropriately delivered diets and exercise, orlistat, sibutramine, and bariatric surgery are safe, efficacious, and cost effective. The remainder should not be marketed until we have evidence for their effectiveness and safety.”



According to Professor Lean, most foods marketed for health have escaped the type of controls on drugs to establish their safety and efficacy. Foods and supplements claiming health benefits should face similar stringent marketing controls to prohibit them from claiming to treat or cure any diseases or conditions. “Obesity is a serious disease that causes disability and shortens people’s lives,” he writes. The impact it can have on people’s

quality of life contributes to a willingness to spend huge amounts of money on ineffective, non-evidence based treatments. “The unregulated marketing of certain foods may include certain claims about effects on health that deceive patients” added Lean, “and the pursuit of profit sometimes has to be curtailed if consumers can be injured or deceived.” Products with unsubstantiated claims have become the bane of responsible

companies, who invest significant resources into substantiating their claims and testing their products’ efficacy. Some ingredients used in weight loss foods and supplements include bitter orange, guar gum, hoodia, garcinia and CLA. However, the food giant Unilever has terminated its plans to market a weight loss product containing hoodia, on the grounds that it does not meet its safety and efficacy standards.

BMJ 2008;337:2408

MEETING REPORTS

CENTRAL REGION NUTRITION SUPPORT MEETING in NEW ZEALAND

Paul Rigby, Dietitian - ICU/Burns & Plastics, Hutt Valley District Health Board

The Hutt Valley District Health Board (DHB) Nutrition Support Team recently had the pleasure of hosting the second Central Region Nutrition Support Meeting. On the afternoon of 15th November 2008, interested health professionals from the lower north island gathered at Hutt Hospital for presentations on a range of nutrition support related topics. Representatives from Capital and Coast, Hawkes Bay, Hutt, MidCentral, Wairarapa and Wanganui DHBs were present.

With the generous support of Baxter Healthcare, Professor Gil Hardy was able to travel down from Auckland to talk on 'Trace elements in PN', where he outlined some of the issues which will be addressed by the ASPEN research workshop 'Micronutrients in PN: Too little or too much?' at Clinical Nutrition Week in February 2009.

Information from recent conferences was also presented. Jo Stewart, Professional Advisor - Dietetics, Capital and Coast DHB provided an overview of ESPEN 2008. Dietitians Paul Rigby (Hutt Valley DHB) and Rose Scanlon (Capital and Coast DHB) provided an overview of AuSPEN 2008, which had a focus on critical care nutrition.

Local Nutrition Support activities were also covered in two other presentations. Paediatric Dietitian Kerry Andersen (Hutt Valley DHB) with the support of one of the community paediatric nurses, presented a paediatric home parenteral nutrition case study. In the session 'What's up? - Nutrition Support projects from around the region' Capital and Coast DHB, MidCentral DHB and Hutt Valley DHB Nutrition Support Teams each gave a short presentation on current projects their teams are undertaking.



Time for a nibble and drinks before the program got underway, and for afternoon tea, provided an opportunity for valuable discussion and networking between attendees. The next meeting is planned for April 2009 in Palmerston North. Please contact Felicity Spencer (felicity.spencer@midcentraldhb.govt.nz), Jo Stewart (jo.stewart@ccdhb.org.nz) or Paul Rigby (paul.rigby@huttvalleydhb.org.nz) for more details.

Gastro 2008

Over 200 gastroenterological 'geysers' erupted at Gastro 2008, the annual scientific meeting of the NZ Society of Gastroenterology & NZNO Gastroenterology Nurses held in November 2008 at the Rotorua Convention Centre, New Zealand.



The first session of the conference was an extremely well-attended Nutrition Workshop, jointly organised by Dr Russell Walmsley and Dr Adrian Clayton with sponsorship by Baxter Healthcare. A lively introduction from Adrian Clayton entitled 'Nutritional Support-Sexy or What?' was followed by 'Mojo Modulation-the Miracle of Glutamine', a light-hearted review of the clinical benefits of glutamine-enriched nutrition by Professor Gil Hardy; 'Small Bowel Transplantation' by paediatric gastroenterologist Dr Helen Evans, who asked 'Is it possible? Is it sensible?'; and a rhetorical surgical question 'To Feed or not to Feed' posed by professor of surgery Bryan Parry. All speakers then participated in a stimulating panel discussion on 'Who Should Get What?' with case studies and Q&A expertly moderated by Russell Walmsley, who promised to organise a repeat workshop for the 2009 ASM.

A series of short papers, young investigator presentations, concurrent nurses programme and keynote lectures followed over the next two days, many of which had a nutritional theme and are summarised below.





Greg Dunne Biomed



NZ Medical Science Ltd

Do NICE criteria for risk refeeding syndrome predict anything nasty?

Clinical experience at North Shore Hospital, Auckland, where feeding is started at 50% caloric requirements for the first 48 hours, suggests Refeeding Syndrome (RS) is extremely rare. Raos *et al* and the Nutrition Support Team (NST) retrospectively assessed the incidence of RS in intravenous nutrition (IVN) patients against the 2006 NICE risk criteria, from January 2007 – January 2008. Of 33/47 'high-risk' IVN patients: 60% had hypokalaemia, 33% hypophosphataemia and 51% hypomagnesaemia. One patient with multiple co-morbidities developed cardiac failure and severe electrolyte changes requiring subsequent fluid restriction. No patients without previously known diabetes required addition of insulin. Of 14/47 'low risk' patients: 36% had hypokalaemia, 15% hypophosphataemia and 7.5% hypomagnesaemia. No patients required intravenous fluid alterations. The NST conclude that patients at risk for RS do have increased incidence of electrolyte abnormalities during IVN, but RS remains rare.

Correction of parenteral nutrition-induced cholestasis by use of fish oil lipid source

Liver disease occurs in 15–40% of adults on home parenteral nutrition (HPN). Walmsley *et al* and the NST at North Shore Hospital, Auckland, presented a case study of a man with pancreatitis and hepatic vein thrombosis, complicated by repeated intra-abdominal sepsis, and bacteraemia from infected central lines. Multiple enterocutaneous fistulae precluded enteral feeding and all major upper body veins including superior vena cava were thrombosed. He was originally discharged on HPN with 29.8kcal/kg/d from an olive oil emulsion (Clinoleic™) via femoral AV fistula, but became progressively jaundiced. Liver MRI showed no steatosis, nor biliary obstruction. Total caloric intake was reduced and a 24 hour break each week from PN introduced to no avail. He was then changed to a fish oil based lipid emulsion (Omegaven™) which resulted in a prompt fall in bilirubin.

Pancreatic enzyme usage for blocked percutaneous endoscopic gastrostomy feeding tubes (PEGs)

A gastrostomy is an artificial opening through the abdominal wall into the stomach through which a feeding tube is placed. Problems can arise when the tube becomes blocked, but after conventional methods are trialed, pancreatic enzymes from pigs can be used. C Percy, Hawkes Bay DHB Hastings, in the nurses programme, explored understanding of pancreatic enzyme usage for patients with PEGs and acceptability on religious and ethical grounds. Safety in practice, recommended doses, administration of pancreatic enzymes, informed consent and careful consideration regarding the origins of the enzymes for unblocking PEG tubes are imperative.

Omeprazole – good for ulcers but not for taste

A Raj and S Parry from Middlemore Hospital presented a Case Study; started on I.V. Omeprazole for gastro-intestinal bleeding from multiple gastric ulcers. After 5 weeks with difficulty swallowing, associated with a weight loss of 20kg due to poor oral intake, and acute renal failure secondary to profound dehydration, the patient reported a marked taste disturbance. Omeprazole was stopped with improvement being noted within 48 hours. After 8 weeks, taste had almost returned to normal as had her oral intake and renal function. Dysgeusia is a rare but potentially serious adverse effect of omeprazole, and should be considered in patients on this medication presenting with poor oral intake.

Ileoscopy in the investigation of iron deficiency anaemia

Tindle and Gerred at Middlemore Hospital documented the frequency and diagnostic yield of ileal intubation during colonoscopy to investigate iron deficiency anaemia (IDA). Over 4.5 years, anaemia was the primary indication in 17% of over 5000 colonoscopies. The terminal ileum (TI) was the target for intubation in only 24%, but 61% of patients with IDA were successfully intubated. TI intubation rates were lower for older patients. It seems reasonable to target TI in cases where IDA remains unexplained following normal colonoscopy, but it difficult to justify prolonged attempts at TI intubation.

Radiation enteropathy – a salutary tale of outcomes in 6 patients

Radiation enteropathy (RE) can present any time following radiation therapy for malignancy in the pelvic organs. Risk factors include: older age, concomitant chemotherapy, surgery prior to radiation, dose of radiation and volume over which it is given. Estimated risk is 5% at five years. Walmsley *et al* at North Shore Hospital have characterised the RE population referred to their NST between Jan 2005 – August 2008. Five patients required surgical intervention and some IVN. Final nutrition route was; oral (4), mixed oral/enteral (1) home IVN (1). One death occurred with hypomagnesaemia and hypokalemia. RE can present a long time after treatment and can result in significant morbidity and may prove fatal. A multi-disciplinary team approach is advocated.

Helicobacter Pylori infection in the Wellington area

Helicobacter pylori is an established gastrointestinal pathogen with malignant potential but prevalence is unknown in most of NZ. S Islam and Kok Kheng Tan ascertained prevalence and variables of the infection by performing an audit of H pylori endoscopy tests at Wellington Hospital Endoscopy Unit between 2004 and 2008. Over 3500 upper GI endoscopies were performed, with CLO tests on 72.5%. This large retrospective study showed that Wellington area has low H pylori prevalence rate compared to other areas of NZ but is not showing a downward trend. Positive predictive factors are: age > 50, place of birth in the Asia-Pacific, but those born in NZ have low prevalence of infection. Common indications for CLO were: dyspepsia > abdominal pain > anaemia > GI bleed. Low CLO positivity possibly indicates concurrent or recent IV/oral PPI therapy +/- antibiotics.

Increased intestinal permeability does not precede mild colitis in the IL 10-/- mouse model of inflammatory bowel disease

Inflammatory Bowel Disease (IBD) seems to be the result of genetic background, composition of intestinal microbiota, increased permeability and an over-reactive immune system. Lindstrom *et al* from University of Otago, investigated whether an increase in apparent intestinal permeability of proximal and distal colons of mice preceded the development of colitis in the IL 10-/- mouse model of IBD, by measuring trans epithelial flux of fluorescein, and degree of inflammation by scoring histological sections of tissues. There was no difference in weight gain between IL10-/- and wildtype mice. However, older IL10-/- mice had increased histology indicating mild to moderate inflammation, but no difference in apparent permeability. The authors postulate that a low environmental bacterial load prevented release of pro-inflammatory cytokines that could have increased intestinal permeability.