Welcome to our fourth edition. I hope you enjoyed the third edition in February. Once the new DAA website is up and running there will be access to each edition online. I have decided to include the case study answers in each edition, just in a different section. I would love to hear any feedback from you about the content or layout or any suggestions about what else you might want to see in the newsletter.

This edition has been the result of the volunteering efforts of six fantastic APD’s who have come together to share this vision. They are Lauren Reece, Felicity Ritorsn, Lina Briek, Shamley Chand, Trang Soriano and Hannah Ryrie.

My role is overseer and editor. My background is acute care clinical dietetics specialising in gastrointestinal surgery. Regardless of my frame of reference, I intend to do my utmost at providing something of benefit to all the different settings and applications of nutrition members of the Gastro IG belong to.

Enjoy!

Ruth Vo

Gastro IG Convenor
Editor

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We've searched through the academic databases to provide a list of recent and relevant literature in nutrition related gastroenterology topics.

**Nutritional Therapy in adult hospitalised patient:**


**Pancreatic neuroendocrine tumours:**


**Chronic liver failure**

Valerio C, Theocharidou E, Davenport, Agarwal B. Human albumin solution for patients with cirrhosis and acute on chronic liver failure: Beyond simple volume expansion. World Journal of Hepatology 2016 March 8, 8 (7): 345-54

**Total Parenteral Nutrition**


**Acute Diarrhoea**


**Microbiota and IBD**


HOT OFF THE PRESS
BY FELICITY RITORNI AND HANNAH RYRIE

Microbiota and peptic ulcer disease


Genetic testing in Gastroenterology


Paediatrics


Pancreas


Diabetes and gallbladder disease


Probiotics and prebiotics


Halmos EP, Christoffersen CT, Bird AR, Shepherd SJ, Muir JG, and Gibson PR. Consistent prebiotic effect on gut microbiota with altered FODMAP intake in patients with crouh'n's disease: A randomised, controlled cross-over trial of well-defined diets. Clinical and Translational Gastroenterology, 7, 10. 2016. Doi:http://dx.doi.org/10.1038/ctg.2016.22

Fatty Liver disease


Haque TR, and Barritt AS. Intestinal microbiota in liver disease. Best Practice & Research, 30(1), 133-142. 2016. Doi:http://dx.doi.org/10.1016/j.bpr.2016.02.004
HOT OFF THE PRESS
BY FELICITY RITORNI AND HANNAH RYRIE

Nutrition support in chyle leaks

Doi:http://dx.doi.org/10.1016/j.nut.2015.08.002

Pilot study: smart phone apps for IBS tracking

Doi:http://dx.doi.org/10.1038/ctg.2016.9

Eosinophilic Esophagitis

Singla MB, and Moawad FJ. An overview of the diagnosis and management of eosinophilic esophagitis. Clinical and Translational Gastroenterology, 7, 8. 2016. Doi:
http://dx.doi.org/10.1038/ctg.2016.4
Case Study – Mr. APP (A Pancreatic Problem)
By Lina Breik

Mr. APP is a 54-year-old male admitted to the gastroenterology ward with pancreatitis on the background of alcohol abuse. His wife died not too long ago from cancer and since, he has spiraled downwards losing his job, increasing his dependence on alcohol, consuming high fat junk food (if anything), and losing of his 9% body weight in 3 weeks.

Mr. APP is quite distressed on admission and you have been asked to assess his nutritional status. Mr. APP is fatigued, nauseated and in severe pain when you go to assess him.

**Q1. What energy and protein requirements would you be aiming to reach during his hospital stay?**

**Q2. What macronutrient(s) would you be taking into account when selecting an appropriate oral nutrition supplement?**

By day 3 when you go to review Mr. APP’s progress, the doctors had upgraded him to a free fluid diet.

**Q3. List 4 clinical/biochemical signs of resolving pancreatitis?**

On day 4, during handover meeting, you hear Mr. APP had a rough night. He vomited 500mls of bile and his abdomen has become severely distended. He is now nil by mouth (NBM) with a nasogastric tube (NGT) insitu on free drainage.

**Q4. What could potentially be causing this vomiting and abdominal distension?**

You return to review Mr. APP on day 6. He is still NBM, with a mild reduction in NGT output from 2L on day 4, 1.2L on day 5 and 500mls by 1500 when you review him on day 6. The doctors have documented no improvement in abdominal distension, ongoing nausea, NGT to remain on free drainage and to continue NBM.

**Q5. Would you recommend parenteral nutrition? Please explain your reasoning as to why or why not.**
Could you please give me a background of your clinical experience and where you currently work?

I graduated with a Bachelor of Nutrition and Dietetics from Monash University in 2008, but chose to add on an honours research year, knowing I would possibly like to complete a PhD later in my career. I was lucky enough to secure a new graduate position at Monash Medical Centre which gave me a fantastic and varied clinical knowledge base. When this position ended I used the opportunity to do some overseas travel, and on returning home in 2011, I started at The Royal Melbourne Hospital where I have worked ever since, moving from a rotational position gaining experience in many different caseloads, and eventually specialising in Gastroenterology and Intensive Care.

What does your role entail? Could you describe your average day at work?

I am lucky enough to have a diverse clinical role at RMH, working with both in and out-patients with Gastroenterological conditions, as well as in the Intensive Care Unit. I typically start my day by attending the ICU ward round where I would advise on the nutritional management of critically ill patients including optimal feeding routes and composition of formulae. I then head to the wards and see a range of patients under the care of the gastroenterology unit including those with IBD, liver disease, intestinal failure, and those requiring enteral and parenteral nutrition. Once a week I run an outpatient Gastroenterology Nutrition Clinic where I follow up recently discharged inpatients, or see patients with newly diagnosed coeliac disease, functional GI disorders, and the 30-or so home enteral nutrition (HEN) patients I look after. Of course thrown in there are department meetings with the Dietetic team, multidisciplinary meetings with medical and allied health staff, work on quality improvement projects, and day-to-day operational tasks.

What are the main gastro-clinical patient group/s you see?

On the wards, the most common patient groups I see would be inflammatory bowel disease, chronic liver disease, acute pancreatitis, and intestinal failure/short gut. Working with one of the leading Australian Gastroenterologists in motility disorders, particularly Gastroparesis, the RMH tends to be a referral hub for these patients and this makes up a large part of my outpatient and HEN caseload.
PRACTITIONER HIGHLIGHT - CONT...

BY TRANG SORIANO

SENIOR CLINICIAN: JESSICA PETERS,
GASTROENTEROLOGY AND INTENSIVE CARE

How do you keep current on the changing science of nutrition?

To keep up-to-date with the latest literature I subscribe to email alerts from the key journals in Clinical Dietetics and Gastroenterology, attend weekly Professional Development meetings both with the Gastro unit and the Dietetics department, and keep an eye on the DAA interest group emails. I usually try to attend one local or international conference each year, and last year was fortunate enough to attend the combined World Gastroenterology Organisation (WGO)/AuSPEN conference in Brisbane, enabling me to learn about exciting new research, and complete 2 ESPEN lifelong learning courses which I would highly recommend.

What's the best thing you like about your job?

The thing I like most about my job is that every day is different. I enjoy trying to wrap my head around a complex clinical case, and the fact that I can still learn something new on most days. One of the most rewarding moments for me is seeing patients who have been in hospital for months, have had multiple surgeries or setbacks, finally transition from PN or EN to oral diet and reach the point where they are well enough to get home and back to work or to the things they love doing.

What are some gastro related challenges you find about your job? I find functional gastroenterology one of the most challenging areas, but also one of the most fascinating. There is often such an interplay of psychological factors and dietary factors, and it can be very difficult to separate these out, and to help the patient to understand the influence that their state of mind can have on their symptoms.

NEW TO PEN

BY TRANG SORIANO

Position Paper: Introduction of Gluten into Infant's Diet

Gluten Introduction and the Risk of Coeliac Disease. A Position Paper by the European Society for Pediatric Gastroenterology, Hepatology & Nutrition (ESPGHAN) and described in a Newswise post. Bottom line: there is no evidence that timing of gluten introduction affects celiac disease risk. The guidelines will be reviewed and incorporated into PEN as appropriate.

Posted: 2016-01-19
DINER UPDATE
BY LAUREN REECE

Keeping Up to Date
This edition includes the regular update of recently added resources to DINER, however also includes some other free resources available to assist with self education and keeping up to date. If you are currently using freely available apps/ resources/ podcasts/ websites to keep up to date and you think others may also benefit, please get in touch to have it included in the newsletter- Lauren.Reece@helyth.nsw.gov.au

DINER Webinars

2016 Nutrition Trends and Highlights by Sarah Hyland, Brooke Longfield and Alison Baldwin
An overview of the 2016 nutrition trends and highlights from a consumer insight, media and food industry perspective. Downloadable from DINER

How to facilitate a cooking class Charlotte Miller, APD and Chef: Reviewed March 2016)
The presentation covers: - Logistics of running a class- group size, location, cost, equipment - Personal requirements- insurance, food handling, food safety - Popular meals and request Tips for success $38 through www.educationinnutrition.com.au

Inflammatory Bowel Disease by DR Guru Iyngkaran, PHD, Gastroenterologist (Reviewed February 2016)
The presentation covers: - Pathophysiology of Crohn's disease and ulcerative colitis - Diagnosis and management - Complications- Dietary considerations $38 through www.educationinnutrition.com.au

Iron and Zinc by Associate Professor Lynn Riddell, Registered Nutritionist (Reviewed February 2016)
The presentation covers: - Metabolism and functions of iron and zinc - Deficiency of iron and zinc - Food sources and current intakes $38 through www.educationinnutrition.com.au
DINER UPDATE - CONT...

BY LAUREN REECE

Science into Literacy Symposium 2016, Meat and Live Stock Australia
A collection of presentations including
- Associate Professor Felice Jacka ‘If improve my diet, will my mental health improve?’
- Dr Jane Muir ‘How much of which dietary fibres is required to achieve optimal gut health?’
- Dr Lisa Houghton ‘Complementary feeding practices in Indonesian infants: Opportunities for optimizing nutrition’
- Prof Carpk Nowson ‘Guidelines for active ageing’
- Anna Rangan ‘Portion Size: What are Australians eating? An analysis from the Australian health Survey 2011-2012’
- Prof Manny Noakes ‘Diet quality, quantity and GHG emissions: is there a link?’
Downloadable for free from DINER

DINER Websites and Resources

Telehealth /Technology based Clinical Consultations by DAA
Outlines the considerations that are needed when providing consultations over the phone or internet.
Downloadable for free from DINER

Anti-inflammatory Eating: Recipes from you Dietitian’s Kitchen by Chloe McLeod, Monica Kubizniak, Kate Bennet, BJC Health
The first e-cook book to be released by BJC Health for people with inflammatory conditions such as arthritis, autoimmune conditions, obesity, CVD, diabetes or people wanting to improve their health and prevent lifestyle conditions. Includes 50+ recipes with modifications for low FODMAP diets.

Australasian Society of Clinical Immunology and Allergy (ASCIA)

Food Allergy e-Training for Dietitians
This course focuses primarily on IgE mediated food allergy and provides information on how to manage patients including patient education. The course includes a module on conditions associated with food allergy such as FPIES and EoE.

Allergy Clinical Update for Dietitians
This document complements the ASCIA Food Allergy e-training. The document provides an evidenced based, quick reference guide to assist Dietitians in the management of patients with IgE and non-IgE mediated food allergy.

Infant Feeding Advice and ASCIA Guidelines for Allergy Prevention in Children
Infant feeding for prevention of allergy; when to introduce complementary foods; introducing allergenic foods; general infant feeding information; other allergy prevention recommendations.
All ASCIA resources available for free at http://www.allergy.org.au/
Other Useful Resources

QxMD- A smart phone app is a single platform to keep up to date with the latest scientific and medical research, topic reviews and allows you to search Pub Med. Using the App you can get full text PDFs through the app or your institution subscription, follow key words, collections or journals, share articles with colleagues and organise your personal library.
Downloadable from Smart phone App Stores or www.qxmd.com

Research Gate- A networking website for scientists and researchers around the world. The website allows you to access and discuss publications, share work at any stage of the research cycle, ask and/or answer questions, get stats on your research and citations and connect with colleagues.
www.researchgate.net
MEDICATIONS

**Chronic Hepatitis C (HBV)**

**Asunaprevir**

Asunaprevir is an antiviral drug used in chronic hepatitis C - compensated liver disease, including cirrhosis. It is used in combination with other antivirals such as daclatasvir or with daclatasvir, peginterferon alfa and ribavirin. It works by inhibiting the viral non-structural 3/4A serine protease required for viral replication. Use is contraindicated in moderate or severe hepatic impairment (Child-Pugh class B or C) and in those with decompensated cirrhosis as it may cause hepatotoxicity.

http://www.australianprescriber.com/

**Ibavir (ribavirin)**

Ribavirin is a nucleoside analogue used in treatment of chronic hepatitis C with other agents such as peginterferon alfa, daclatasvir or sofosbuvir. It works by interfering with RNA and DNA synthesis, thereby inhibiting protein synthesis and viral replication. The different treatment combinations used with ribavirin depend on the viral genotype, the patients cirrhotic status and whether they have previously received treatment for HCV infection.


**Gastric cancer**

**Ramucirumab**

Ramucirumab is a monoclonal antibody used in patients with advanced or metastatic gastric or gastro-oesophageal junction adenocarcinoma. It works by binding to vascular endothelial growth factor receptors, which is important in the progression of gastric cancer. It is most often used in combination with paclitaxel or as monotherapy if paclitaxel cannot be given when the disease has progressed after cytotoxic chemotherapy.

http://www.australianprescriber.com/

**Nausea and vomiting**

**Akynzeo**

Akynzeo is a fixed combination of Netupitant and Palonosetron used for the prevention of acute and delayed nausea and vomiting associated with initial and repeat courses of cancer chemotherapy.


cont...
JOURNAL ARTICLES:

ESPEN guidelines on chronic intestinal failure in adults

Chronic Intestinal Failure (CIF) is the long-lasting reduction of gut function, below the minimum necessary for the absorption of macronutrients and/or water and electrolytes such that intravenous supplementation is required to maintain health and/or growth. These guidelines provide comprehensive recommendations for safe and effective management of adult patients with CIF.


Gastroparesis and Malnutrition

This article outline a systematic approach to consider in complex patients with gastroparesis. Strategies include nutritional screening, diet recommendations, medical therapies, nutrition monitoring and enteral/parenteral nutrition.

Bharadwaj S; Meka K; Trandon P; Rathur A; Rivas J; Vallabh H; Jevenn A; Guirguis J; Sunesara I; Nischnick A; Ukleja A. The management of gastroparesis associated malnutrition [cited May 2016] Journal of Digestive Diseases 2016 Apr PMID: 27111029

Iron Deficiency, Zinc Magnesium, Vitamin Deficiencies in Chrohn's disease: Substitute or Not?

A review article focuses on at risk nutrients in Chrohn's disease and provides recommendations for treatment of deficiencies.


FODMAPs Systematic Review and Meta-Analysis

A review to determine the evidence for a low FODMAP diet in the treatment of functional gastrointestinal symptoms. Six RCT and 16 non-randomized interventions were assessed. Low FODMAP diets were found to reduce IBS SSS scores and symptom severity and increase scores on the IBS-QOL.


cont...
Should Perioperative Immunonutrition be Standard Care?

This review discusses the positive post-operative outcomes associated with immunonutrition, the cost effectiveness, the current guidelines and future directions of care.


Gastroparesis and Malnutrition

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Bharadwaj S; Meka K; Trandon P; Rathur A; Rivas J; Vallabh H; Jevenn A; Guirguis J; Sunesara I; Nischnick A; Ukleja A. The management of gastroparesis associated malnutrition [cited May 2016] Journal of Digestive Diseases 2016 Apr PMID: 27111029
NUTRITION IN ACTION
CASE STUDY: ANSWERS

Q1. What energy and protein requirements would you be aiming to reach during his hospital stay?

Energy: 105 – 147 kJ/kg/day
Protein: 1.2 – 1.5 g/kg/day
Carbohydrates: 3-6 g/kg/day
Fat: 2 g/kg/day


Q2. What macronutrient(s) would you be taking into account when selecting an appropriate oral nutrition supplement?


By day 3 when you go to review Mr. APP’s progress, the doctors had upgraded him to a free fluid diet.

Q3. List 4 clinical/biochemical signs of resolving pancreatitis?

1. C-reactive protein (CRP) trending downwards
2. Reduced abdominal pain on ingestion of oral intake
3. Reduced feelings of nausea, absence of vomiting
4. Normalisation of bowel habits


On day 4, during handover meeting, you hear Mr. APP had a rough night. He vomited 500mls of bile and his abdomen has become severely distended. He is now nil by mouth (NBM) with a nasogastric tube (NGT) insitu on free drainage.
Q4. What could potentially be causing this vomiting and abdominal distension?

A reactive ileus usually associated with severe pancreatitis.

Reference: Diagnosis and Management of Acute Pancreatitis; Baker S. Critical Care and Resuscitation 2004; 6: 17-27

You return to review Mr. APP on day 6. He is still NBM, with a mild reduction in NGT output from 2L on day 4, 1.2L on day 5 and 500mls by 1500 when you review him on day 6. The doctors have documented no improvement in abdominal distension, ongoing nausea, NGT to remain on free drainage and to continue NBM.

Q5. Would you recommend parenteral nutrition? Please explain your reasoning as to why or why not.