The effect of polyphenols on cardiovascular risk factors in haemodialysis: a systematic review and meta-analysis

Kelly, Jaimon T; Marshall, Skye; Nakos, Stacey; Itsiopoulos, Catherine; Marx, Wolfgang

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PROGRAM

Collaboration

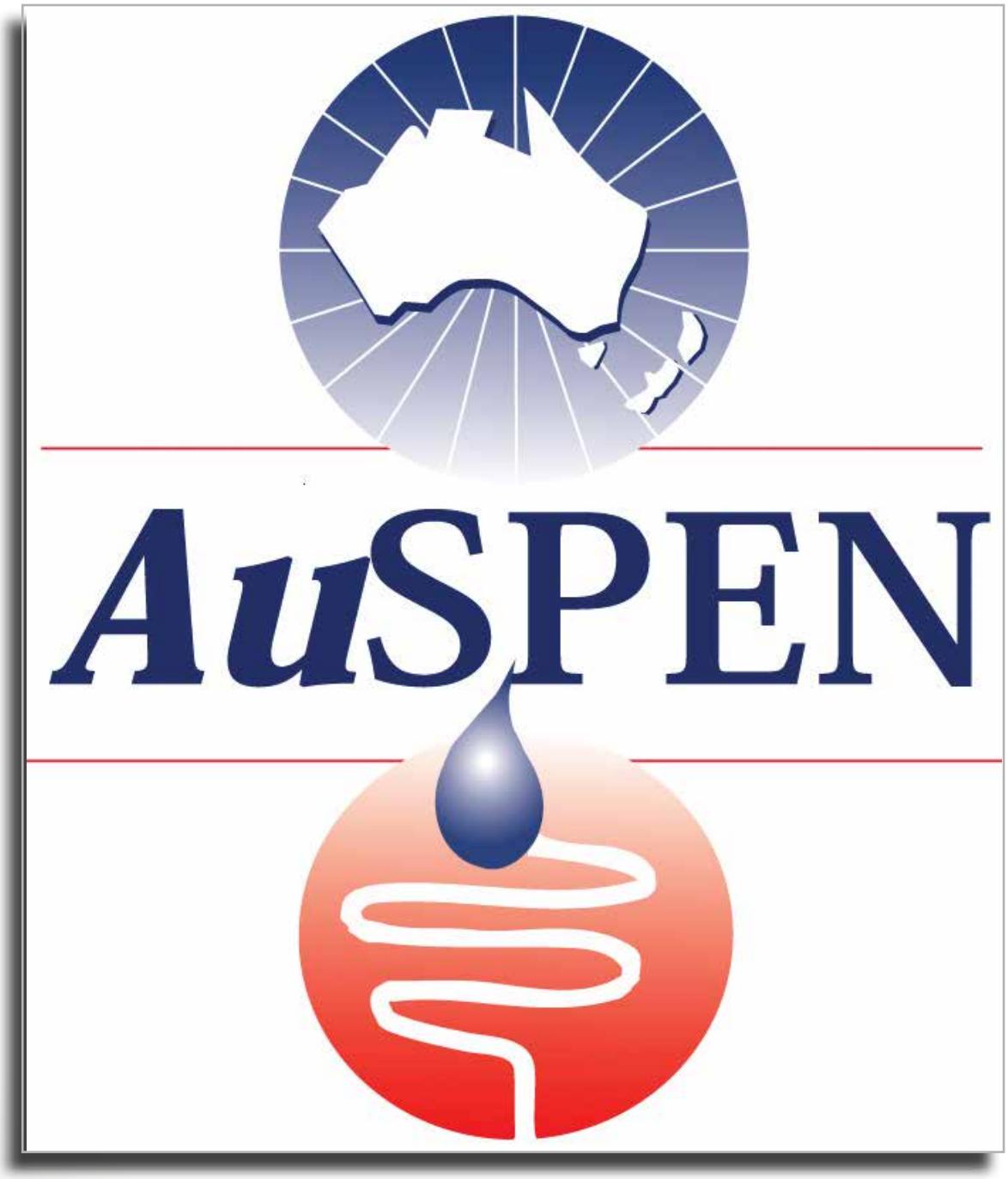
in Clinical Nutrition

Evidence-based nutrition for improving patient outcomes

Thursday 16th
to
Saturday 18th
November, 2017

AuSPEN

Royal Pines
Conference Centre
Gold Coast, QLD
www.auspen2017.com.au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AuSPEN Welcome

Welcome to the AuSPEN 2017 Conference!

On behalf of the AuSPEN Council, Scientific Committee and the Local Organising Committee, it is our pleasure to welcome you to the 43rd Annual Scientific Conference of the Australasian Society for Parenteral and Enteral Nutrition (AuSPEN) on the Gold Coast.

We hope that this year's conference theme of **"Collaboration in Clinical Nutrition – Evidence Based Nutrition for Improving Patient Outcomes"** provides you with the latest evidence, inspiration and practical tips for best clinical nutrition patient outcomes. We are thrilled to welcome Professors Stansialw Klek and Remy Meir as our keynote international speakers providing a wealth of clinical nutrition experience and insights. We are also honoured to welcome Dr Bhuvaneshwari Shankar from India, who will enlighten us to cultural considerations in providing nutrition support. Via video link we will also be updated and inspired by leading international clinical nutrition experts Professors Alessandro Laviano, Isabel Correia and Dan Waiztberg.

The conference program features concurrent workshops on Thursday 16th November including the very popular ESPEN LLL courses: Nutrition Support in Gastrointestinal Diseases, and Nutrition Support in Cancer. We have again included a paediatrics clinical nutrition workshop after the success of last year's workshop in Melbourne. For the first time we are conducting a Knowledge Translation workshop, to provide the "know how" and show case exemplars in implementation science to inspire you to continually improve your clinical nutrition practice.

The main program on Friday and Saturday will feature plenary sessions and symposia on a wide range of nutrition support and clinical nutrition topics (including enteral and parenteral nutrition in overweight and obesity, enhanced recovery after surgery, nutrition in oncology, cultural considerations in nutrition support, gastroenterology and microbiota, panel discussions with case-studies on collaboration, and more!) and of course the AuSPEN free paper oral presentations and poster display.

We hope that you can enjoy your time on the beautiful Gold Coast and have a chance to explore the hinterland and relax on the beautiful beaches.

A big thank you to our AuSPEN members, speakers, poster presenters, industry partners and sponsors, organizing committee and of course our attendees. Please make the most of this time to network with leaders in the clinical nutrition field, share your challenges and wins and work together as we make the 43rd Annual AuSPEN Scientific Conference on the Gold Coast one to remember.

Ibolya Nyulasi
AuSPEN President

Liz Isenring
Chair, Scientific Committee

2017 Organising Committee

Meet the local program committee for the 2017 Gold Coast ASM:

Prof. Liz Isenring (Chair)
Bond University

Dr. Skye Marshall (Deputy Chair)
Bond University

Committee Members:

Azmat Ali
Princess Alexandra Hospital

Dr. Russell Canavan
Gold Coast University Hospital

Ra'eesa Doola
Mater Health Services & University of Queensland

Todd Leeder
Robina Hospital

Prof. Andrea Marshall
Griffith University

Dr. Barbara van der Meij,
Mater Health Services and Bond University

Alan Spencer
Gold Coast University Hospital

Siong Pang
Princess Alexandra Hospital

Hannah Mackay
Mater Health Services

Social Events Working Party:

Daniel So
Bond University

Dwayne Garcia
Bond University

Sophie Hofto
Bond University

Steffani Ford
Bond University

Overseas Guest Speakers

Prof. Isabel Correia - Brazil (via videolink)

Prof. Correia is a Professor of Surgery at the Universidade Federal de Minas Gerais and Chief of the Nutrition Therapy Team at the Alfa Institute of Gastroenterology and Surgery of the University Hospital, Belo Horizonte, Brazil. Her research includes the nutritional needs of patients with cancer and undergoing liver transplant. Prof. Correia will join us at AuSPEN via videolink to present in the main program

Prof. Stanislaw Klek - Poland

Prof. Klek is a Surgical Oncologist. He is the Chairman of the Polish Society for Parenteral, Enteral Nutrition & Metabolism (POLSPEN) and the Chair-Elect of the International Section of ASPEN. Prof. Klek is also an associate editor of Clinical Nutrition and head of the Oncological Surgery Unit and HPN unit at Stanley Dudrick's Memorial Hospital in Skawina, Poland. His research interests include clinical nutrition, metabolism, surgery, oncology and ultrasonography. As an accredited ESPEN LLL teacher, he will contribute to teaching the AuSPEN LLL sessions, as well as present in the main program.

Prof. Alessandro Laviano - Italy (via videolink)

Prof. Alessandro Laviano is Associate Professor of Internal Medicine at the Department of Clinical Medicine, Sapienza University of Rome, Italy. He works at the Clinical Nutrition Unit of the Sapienza University Hospital in Rome, Italy. Also, Prof. Laviano holds a position of Visiting Research Professor at Upstate Medical University, Syracuse, NY, USA. Prof. Laviano received his MD degree at the Sapienza University of Rome, Italy, where he also completed the residency programmes in Internal Medicine and Nephrology. Prof. Laviano will join us at AuSPEN via videolink to present in the main program

Prof. Remy Meier - Switzerland

Prof. Meir is a Gastroenterologist and Professor at the University of Basel, and recognised as a specialist in clinical nutrition. He was chairman of the Education Committee of ESPEN and is now the co-director of the ESPEN LLL Program. He will facilitate the ESPEN LLL sessions as well as present in a plenary session in the main program.

Dr. Bhuvaneshwari Shankar - India

Dr. Bhuvaneshwari Shankar is the Vice President (Dietetics) and Group Chief Dietitian for the Apollo Hospitals Group. She has 32 years of Experience as a Dietitian. Dr. Bhuvaneshwari holds a PhD in Clinical Nutrition, with a specialisation in Critical Care Nutrition. She is an Examiner for various Universities, member, Board of Studies - Nutrition, Madras University and has received a Lifetime Achievement Award from the JBAS College, Chennai. She is an Expert Committee Member, Nutrition Board- Government of India.

Dr. Shankar will present in the main program.

Prof. Dan Waitzberg - Brazil (via videolink)

Prof. Waitzberg is a Gastrointestinal Surgeon, Director of Laboratory of Investigation in Metabolism and Nutrition in Digestive Surgery at FMUSP, and Clinical Director of Nutrition Services University of Sao Paulo Medical School. His main area of research is clinical nutrition, with special interest in inflammatory response, malnutrition, immunonutrition and enteral and parenteral nutrition in the context of surgery and cancer. Prof. Waitzberg will give a number of presentations in the main program.

Invited Speakers

Louise Becroft

Louise Becroft is a senior dietitian working in the upper gastro-intestinal surgery unit at the Alfred Hospital, Melbourne. She specialises in bariatric surgery. She has had extensive experience working as a clinical dietitian in both Australia and the UK. Louise is active in research in bariatric nutrition, currently undertaking further post graduate studies in body composition changes and outcomes in the morbidly obese population.

Kristie Bell

Dr. Kristie Bell is a paediatric dietitian with over 18 years of clinical paediatric dietetics experience. She is the Dietitian Consultant at Lady Cilento Children's Hospital, Brisbane and is a Senior Research Fellow with the University of QLD. Dr. Bell has a special interest in the nutritional management of children with physical disabilities and completed her PhD in this area. Current research interests include development and validation of a screening tool for feeding and nutrition disorders in children with cerebral palsy.

Katie Benton

Katie Benton has worked in cancer care for seven years. This has included head and neck cancer, haematology and surgical UGI oncology. With a very keen interest in research, Katie has been data manager for two NHMRC cancer trials and recently submitted her manuscript on nutritional management of patients undergoing an enhanced recovery after surgery protocol post oesophagectomy. Katie is passionate about improving the health and wellbeing of people living with cancer.

Katrina Campbell

Katrina Campbell is an Advanced Accredited Practising Dietitian and Associate Professor within the Nutrition and Dietetics program at Bond University. Her research areas of expertise include clinical nutrition, particularly investigating the effectiveness of lifestyle interventions targeting cardiovascular and chronic kidney disease (CKD), metabolism, drivers of nutritional status and the microbiome.

Ra'eesa Doola

Ra'eesa has practiced as a clinical dietitian since her graduation from the Queensland University of Technology in 2005. She has gained a broad range of experience in clinical dietetics having worked across most acute areas in the hospital setting. Ra'eesa has a special interest in 'nutrition support' and is currently undertaking her PhD investigating the role specialised nutritional products may have in improving blood sugar levels in the critically ill and patients after surgery.

Annabel Doolan

Annabel Doolan nourishes little hearts at The Lady Cilento Children's Hospital in Brisbane and is the recognised specialist cardiac dietitian across Queensland. She has extensive experience in critical care and nutrition support including infant tube weaning practices.

Megan Farquhar

Megan is a paediatric dietitian at Lady Cilento Children's Hospital and has specialised in the area of child and adolescent mental health for the past three years. Megan has been instrumental in the development and implementation of a new rapid refeeding protocol and has developed Statewide guidelines for the nutrition management of paediatric patients with anorexia nervosa.

Suzie Ferrie

Since 2001, Dr. Suzie Ferrie has been the Critical Care Dietitian in the ICU at Sydney's Royal Prince Alfred Hospital. She is also a clinical affiliate lecturer at the University of Sydney. Author of over 30 peer-reviewed journal papers and a number of book chapters and consumer nutrition articles, her research interests include gut function in critical illness, and methods for nutritional assessment and monitoring in the ICU.

Invited Speakers

Marcelee Gellatly

A Speech Pathologist with extensive clinical skills in both adult and paediatric caseloads across educational, community health, tertiary hospital and private settings since graduating from the University of Queensland. Her interests include paediatric feeding and dysphagia across the developmental continuum and multidisciplinary approaches to feeding difficulties, and is passionate about mentoring speech pathologists in this area. Marcelee has specialised in the area of paediatric cardiology since 2006 and has been a co-author on paediatric cardiology research publications.

Lyndal Gray

Lyndal Gray is the Senior Leisure Therapist in Cancer Services, Princess Alexandra Hospital, Brisbane. Lyndal's specific interest areas include using leisure to increase quality of life during cancer treatment particularly with adolescents and young adults. Lyndal has been a Communication Skills Trainer for the past 9 years and her wish is for all professionals working in cancer care to have access to appropriate and regular communication training to build a workforce that successfully recognizes, elicits and manages the psychosocial distress of cancer patients

Ingrid Hickman

Dr. Ingrid Hickman is an Advanced Accredited Practicing Dietitian and a Principal Research Fellow with the Department of Nutrition and Dietetics at the Princess Alexandra Hospital and a Senior Research Fellow with the Mater Research Institute-UQ, Queensland. Over the last 15 years, her research career has focused on translating research findings associated with optimising metabolic health for people with obesity-related chronic disease. But it has been the more recent dedication to research training and capacity building in clinical staff that has had the greatest impact on research translation in health care settings.

Gerald Holtmann

Prof. Gerald Holtmann currently is the Director of Gastroenterology & Hepatology at the Princess Alexandra Hospital. He is an accomplished and internationally renowned Academic Gastroenterologist, with particular research focus in the field of neurogastroenterology and has led pathophysiology research in the field of functional gastrointestinal disorders for nearly two decades. He is also the Associate Dean Clinical across the two health faculties at the University of Queensland.

Bethany Hooke

Bethany has worked in public health services since 1996 as a Speech Pathologist, service team leader, and project lead in both metropolitan Brisbane and regional Queensland. She is particularly interested in how health services link across sectors and along the continuum of care to improve the experiences and outcomes of children and their families with additional health care needs. Her current position is as the CHQ NDIS Transition Manager.

Liz Isenring

Prof. Liz Isenring joined Bond University in 2014 to head up the new Nutrition and Dietetics programs. She is a leading nutrition and dietetics academic, an Advanced Accredited Practising Dietitian and previously worked at the University of Queensland, Flinders University and Queensland University of Technology. Professor Isenring is internationally recognised in the areas of oncology nutrition, nutrition in older adults, nutrition screening and assessment.

Jaimon Kelly

Jaimon Kelly is an Accredited Practicing Dietitian and PhD Scholar at Bond University. Jaimon is passionate about improving patient-centred care in chronic kidney disease, is an advocate for patient-engagement in both the clinical and research setting, and has a strong interest in exploring new ways to deliver dietary education to improve patient's self-management.

Andrea Marshall

Andrea Marshall is a Professor of Acute and Complex Care Nursing at Griffith University and Gold Coast Health. Her program of research focuses on improving nutrition intake of acute and critically ill patients, using knowledge translation and implementation science as a primary methodology.

Invited Speakers

Anthony Meade

Anthony Meade is Principal Renal Dietitian at Central Northern Adelaide Renal and Transplantation Service, Royal Adelaide Hospital, and convenor of the Renal Nutrition Program. He is committed to taking the confusion out of renal nutrition practice and educating clinicians and people with chronic kidney disease on the practical aspects of renal nutrition.

Mark Morrison

Prof. Mark Morrison joined the University of Queensland Diamantina Institute in October 2013, as chair and principal group leader in microbial biology and metagenomics. Mark serves as Australia's science representative to the International Human Microbiome Consortium and holds an affiliate Professorship with the University of Queensland's School of Chemistry and Molecular Biosciences.

Jane Nearhos

Jane Nearhos is a Psychologist with over 20 years experience in disability, rehabilitation, mental health, and health care. She has also worked with diabetes care and chronic pain management. Her current role is with the multidisciplinary team providing training and support to home haemodialysis users at Princess Alexandra Hospital in Brisbane. Her research interests are in the psychological adjustment of people with chronic illness, particularly kidney disease.

Harald Puhalla

A/Prof. Harald Puhalla is a bariatric surgeon with private and public appointments at the Gold Coast. He teaches surgery at the Griffith University and has published more than 30 scientific articles.

Shelley Roberts

Dr. Shelley Roberts is a dietitian and a postdoctoral research fellow at Griffith University. Her research focuses on improving nutrition among hospitalised patients, with particular interests in patient engagement, healthcare technologies, and integrated knowledge translation.

Shannon Springer

Dr. Shannon Springer is the Associate Professor and the Discipline lead for Aboriginal and Torres Strait Islander Health at Bond University on the Gold Coast. Shannon is a GP and a Fellow of Royal Australian College of General Practitioners, and practice owner with a passion for Indigenous Primary Health Care, Medical Education and Community Development. He sits on the board of the Australian Indigenous Doctors Association and the Royal Australian College of General Practitioners National Faculty for Aboriginal and Torres Strait Islander Health.

Iain Thomson

Dr. Iain Thomson is a consultant surgeon with the upper gastrointestinal unit at the Princess Alexandra Hospital and senior lecturer with the University of Queensland. He has an interest in ongoing surgical research in particular applying this to oesophageal and gastric cancer. This interest has seen the PAH UGI unit recently changed to a enhanced recovery program for oesophagectomy patients.

Elizabeth Upton

Elizabeth Upton has fourteen years of experience as a clinical pharmacist working in various hospitals and in various roles across Australia and the United Kingdom. Elizabeth is now happily part of the Women's and Families team at the Sunshine Coast University Hospital. Elizabeth's main area of interest is neonatal care.

Barbara van der Meij

Dr. Barbara van der Meij is a conjoint senior research dietitian at Bond University and Mater Group, mainly focusing on nutrition and muscle wasting in cancer and older adults, focusing on efficacy of nutritional support strategies such as omega-3 fatty acids, essential amino acids and meal adaptations. Her ultimate goal is to improve quality of life and outcomes in cancer patients and older adults.

Boutaina Zemrani

Dr. Boutaina Zemrani is a fellow in Clinical Nutrition and Intestinal Rehabilitation at the Royal Children's Hospital in Melbourne. After completing general pediatric training in several countries including Switzerland, Morocco and Belgium, she obtained a European Inter-University Degree in Clinical Nutrition and Metabolism (Artificial Nutrition) at the University of Paris Descartes in Paris France. Boutaina is passionate about improving the nutrition and well-being of paediatric patients.

Shelley Wilkinson

Dr. Shelley Wilkinson is an Advanced Accredited Practising Dietitian and the Senior Research Dietitian in the Mater Mothers' Hospital, Brisbane. She currently holds a Queensland Health - Health Research Fellowship and has previously held an NHMRC TRIP Fellowship. Shelley has been a dietitian since 1995 and also has a PhD in Psychology.

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AuSPEN INFORMATION

Past AuSPEN Conferences

This is the 43rd AuSPEN Annual Scientific Meeting, one of the longest running PEN societies in the world!

Travelling all over Australia and New Zealand the last 10 years:

- 2006 Sydney
- 2007 Perth
- 2008 Sydney
- 2009 Christchurch
- 2010 Gold Coast
- 2011 Melbourne
- 2012 Adelaide
- 2013 Sydney
- 2014 Auckland
- 2015 Brisbane
- 2017 Gold Coast

Future conferences:

Further information about the 2018 conference will be posted on the AuSPEN website in December 2017. www.auspen.org.au

AuSPEN Research Grants

AuSPEN has a rich history in funding of research. In 2017 AuSPEN has again offered a generous amount of grant funding to members.

Annual General Meeting

Friday 18th November 5.30-6.15pm

•Attendance is for financial members only (includes any new members whose approval has been processed)

•Sign in of attendance is mandatory

Have you enjoyed the AuSPEN ASM?

Then join up as an AuSPEN member now!

The Australasian Society for Parenteral and Enteral Nutrition is Australasia's only multi-disciplinary society representing health professionals in the field of Clinical Nutrition. AuSPEN membership offers many member benefits, not least opportunity to network with colleagues throughout Australia and New Zealand. If you are not yet a member but have enjoyed all our Annual Scientific Meeting has offered, please consider joining our Society.

Applying to Join AuSPEN

By joining now, you will be eligible for a part-year membership fee of only $185.* Visit www.auspen.org.au and follow Apply for Membership. Joining requires a credit card payment and takes only 2 minutes. Member benefits commence immediately.

AuSPEN looks forward to your membership and your contributions! *the AuSPEN membership runs from 1 July each year until 30th June the following year (current full year fee is $225).

Conference Etiquette:

Please ensure that your mobile phone and other electronic devices are switched off or onto silent during conference sessions. As a courtesy to the speakers and your fellow delegates, we also request that you limit use of phones, laptops or tablets during the sessions to taking notes on the speaker presentations. If you have other work and correspondence that urgently requires attention, please leave the session room and attend to this outside. Photography or videorecording using any device (camera, smartphone or tablet) during the conference sessions is NOT PERMITTED except with prior approval by AuSPEN. Delegates not adhering to this requirement may be asked to leave the conference session.

Name Badges

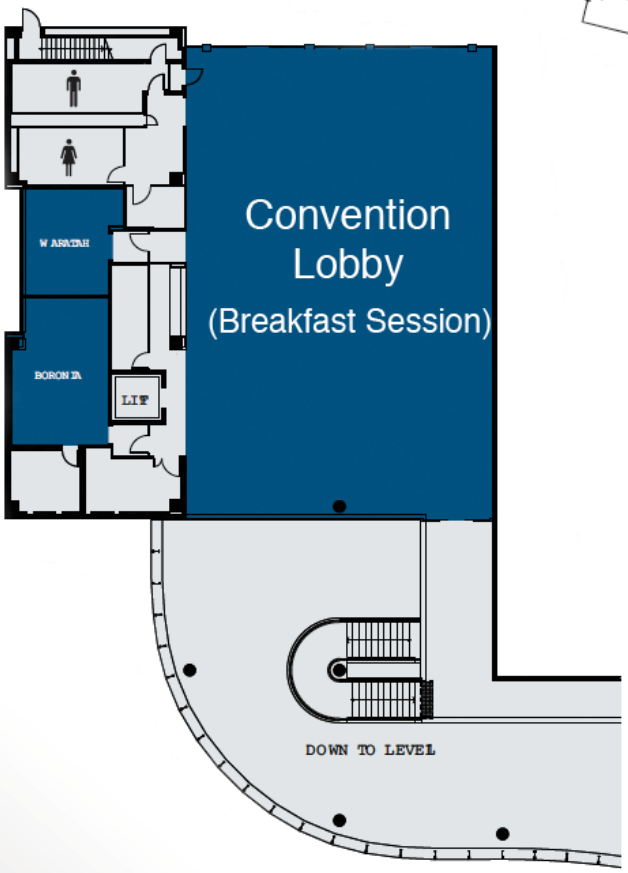
Your name badge allows entrance to all sessions. You must wear this badge at all times whilst within the venue. Should you lose your badge, please visit the registration desk for a replacement.

Dietary Requirements

If you have a special dietary requirement and you did not notify Corporate Communique (congress managers), please visit the registration desk to see if your request can be arranged. Please note that request for Nonspecific requirements, such as low GI and low fat cannot be guaranteed.

Ground Floor

First Floor



PRE-CONFERENCE EDUCATIONAL EVENTS

Concurrent Session 1(a) - 0830-1230

ESPEN LLL: Nutrition Support in GI Diseases
Chair: Susannah King
Facilitators: Prof. Remy Meier, Prof. Stanislaw Klek
Marquis Room

Times 0830-1015	Topic	Speaker
	The Compromised Gut	Prof. Stanislaw Klek
	Challenges in treating intestinal failure in short bowel	Prof. Stanislaw Klek
	Nutritional support in gastrointestinal fistulas	Prof. Remy Meier
10.15-1045	Morning tea	
Times 1045-1230	**Topic**	**Speaker**
	Nutritional support in inflammatory bowel diseases	Prof. Remy Meier
	Case-studies	
	LLL Test	

Concurrent Session 1(b) - 0830-1230

Workshop: Implementing best evidence into practice – how and why
Chair: Prof. Andrea Marshall
Speakers / Facilitators: Prof. Andrea Marshall, Dr. Shelley Wilkinson, Dr. Shelley Roberts, Dr. Ingrid Hickman
Monarch Room

If you've ever wondered how you put into practice the evidence gained from journal papers-this workshop is for you!

In this Implementation Science Workshop the fundamental concepts of knowledge translation and implementation will be explored as they relate to the delivery of effective, efficient, safe and timely patient centred care. Leading knowledge translation and implementation clinician researchers will discuss their experiences of preparing the workforce for knowledge translation; using integrated knowledge translation to ensure clinicians, consumers and researchers develop and implement meaningful strategies to improve practice; developing complex interventions; and, developing sustainable interventions. Each speaker will use exemplars from their work which illustrate how knowledge translation principles and research can shape and improve nutrition care.

Times	Topic	Speaker
0830-0845	Introduction & aims of the workshop	Prof. Andrea Marshall
0845-0915	What is knowledge translation(KT) and implementation science?	Prof. Andrea Marshall
0915-0945	KT Exemplar 1: Preparing a workforce for KT	Dr. Ingrid Hickman
0945-1015	KT Exemplar 2: Partnering with consumers to implement change in clinical nutrition practice	Prof. Andrea Marshall
10.15-1045	Morning tea	
1045-1115	KT Exemplar 3: Using technology to engage patients in their nutrition care	Dr. Shelley Roberts
1115-1145	KT Exemplar 4: Sustainable statewide dietetic model of care implementation in GDM	Dr. Shelley Wilkinson
1145-1230	Where to from here: Panel discussion dealing with problems and resources	Facilitator: Prof. Andrea Marshall
1230-1330	Lunch	

PRE-CONFERENCE EDUCATIONAL EVENTS

Concurrent Session 2(a) - 1330-1730

ESPEN LLL: Nutrition Support in Cancer
Chair: Azmat Ali
Marquis Room

Times 1330-1515	Topic	Speaker
	Mechanisms and clinical features of cancer cachexia	Prof. Stanislaw Klek
	Nutritional effects of cancer therapy and potential modulation of tumor growth	Dr. Barbara van der Meij
	Multimodal therapy for cancer cachexia	Prof. Remy Meier
1515-1545	Afternoon tea	

Times 1545-1730	Topic	Speaker
	Pharmacologic Therapy	Prof. Remy Meier
	Case-studies	
	LLL Test	

Concurrent Session 2(b) - 1330-1730

Paediatric Workshop – Translating evidence into practice
Chair: Julia Fox
Monarch Room

Are you working in the field of paediatrics or just interested in expanding your knowledge base? Then the paediatric workshop, translating evidence into practice, is for you!

We have a broad range of speakers from a variety of disciplines and backgrounds who work in the clinical and research setting. They will help guide you through the sometimes difficult path of applying the most recent evidence based outcomes into practice in the clinical setting. Speakers include Dr. Kristie Bell who has many years of experience in applying her own research into clinical practice and is highly regarded in the world of cerebral palsy nutrition. We will also hear from Bethany Hook, who in her current role as NDIS transition manager, is working to help health professionals and families prepare for the NDIS. Her presentation will explore what health professionals can do to help support NDIS readiness. We also have speakers from Speech Therapy, Dietetics, Pharmacy and Medicine allowing for a true multi professional workshop. We will conclude the session with a networking meeting for health professionals working or interested in the area of parenteral nutrition and intestinal failure.

Times 1330-1515	Topic	Speaker
1330-1415	Nutrition support for paediatric cardiac conditions and tube weaning programs	Annabel Doolan & Marcelee Gellatly
1415-1445	Rapid refeeding protocols for children and adolescents with eating disorders	Megan Farquhar
1445-1515	NDIS in paediatrics – how will it work?	Bethany Hooke
1515-1545	Afternoon tea	
1545-1610	Monitoring of long term parenteral nutrition	Dr. Boutania Zemrani
1610-1635	What is the evidence for probiotic use in neonates and children	Elizabeth Upton
1635-1700	Optimising growth for children with cerebral palsy- Red flag study	Dr. Kristie Bell
1705-1730	Parenteral Nutrition Interest Group Meeting	Dr. Shelley Wilkinson

Times	Topic	Speaker
0830-0840	**Welcome and conference opening. Prof. Ibolya Nyulasi, President of AuSPEN**	
	0840-1010 Opening symposium: Collaboration in Clinical Nutrition - Oncology **Chairs: Prof. Liz Isenring and Prof. Ibolya Nyulasi - Marquis Room**	
0840-0915	Optimal Nutritional care during cancer treatment (via videolink)	Prof. Alessandro Laviano
0915-0950	Is Nutrition still important in the new era of surgical oncology?	Prof. Stanislaw Klek
0950-1010	Models of care in cancer nutrition: how do we translate ESPEN guidelines into practice?	Dr. Barbara van der Meij & Prof. Liz Isenring
1010-1045	**Morning tea & poster viewing**	
	Concurrent Abstract Sessions	
1045-1230	**Oral presentations selected from abstract submissions**	
Monarch	**Chairs: Dr. Varsha Astrani and Prof. Liz Isenring**	**Presenting author**
1045-1100	The effect of resveratrol on cognitive performance: a systematic literature review and meta-analysis	Wolfgang Marx
1100-1115	Malnutrition Prevalence and Associated Outcomes	Lauren Grundy
1115-1130	Measured energy expenditure in critically ill burn patients correlates with time post-injury but not burn size	Susannah King
1130-1145	Effects of substitution or addition of carbohydrate and fat to protein supplements on gastric emptying, gut hormones and energy intake in healthy older men	Stijn Soenen
1145-1200	Appetite and nutrient intake in survivors of critical illness	Lee-anne Chapple
1200-1215	An audit of the postoperative nutritional practices following major abdominal surgery	Jessie Varghese
1215-1230	Assessing treatment options for intestinal failure patients using time trade-off methodology.	Sharon Carey
Marquis	**Chairs: Dr. Skye Marshall and Dr. Barbara van der Meij**	**Presenting author**
1045-1100	Pre-operative malnutrition is a predictor of post-operative outcomes in Peritonectomy Surgery	Lauren Reece
1100-1115	Platinum-induced fatty acids are present in cancer patients but may not be associated with treatment response	Laisa Teleni
1115-1130	Depressed mood and cognitive functions in patients with cancer are associated with alterations in tryptophan metabolism	Dr. Barbara van der Meij
1130-1145	Sarcopenia is associated with sedentary behaviour and physical activity in people with malignant pleural mesothelioma	Emily Jeffery
1145-1200	Enteral nutrition support and treatment toxicities in patients with head and neck cancer receiving helical intensity-modulated radiotherapy with concurrent chemotherapy	Claire Blake
1200-1215	Tolerability of early enteral nutrition post allogeneic stem cell transplantation - a randomised comparison to standard care	Sarah Andersen
1215-1230	Improving nutrition cancer care outcomes - findings from a state-wide benchmarking pilot study	Natalie Simmance
1230-1400	**Lunch & poster viewing**	
1400-1540	**Symposium 2: Microbiota in managing chronic disease. Chairs: Dr. Rebecca Burgell and Alan Spencer**	
1400-1435	Microbiota and probiotics in inflammatory bowel disease	Prof. Remy Meier
1435-1500	Looking from the outside into the functional gut disorder microbiome	Prof. Mark Morrison
1500-1525	Gut mucosa and microbiome: Part of the puzzle of functional gastrointestinal disorders?	Dr. Gerald Holtmann
1525-1540	Pre, Pro and Synbiotics in chronic kidney disease	A/Prof. Katrina Campbell
1540-1610	**Afternoon tea & poster viewing**	
1610-1730	**Symposium 3: Nutrition support in kidney disease. Chairs: Dr. Sharon Carey and Hannah Mackay**	
1610-1650	Philosophies around nutrition support in kidney disease: a focus on IDPN	Anthony Meade
1650-1710	Delivering telehealth for management of CKD: Clinical outcomes versus patient experience	Jaimon Kelly
1710-1730	Psychological factors that act on dietary compliance in patients with kidney disease	Jane Nearhos
1730-1815	AUSPEN Annual General Meeting (held in the Marquis room)	Ibolya Nyulasi
1815-2100	**Welcome Cocktail Party: Pina Colada Tropicana.....** **Poolside Deck, Royal Pines Resort.** **Dress code: Smart Casual-Tropical**	

0700-0815	**Fresenius Breakfast Meeting - registration required for this. (Convention Lobby, Royal Pines Resort)**	
0830-1010	**Symposium 4: Collaborating for nutrition support Pre & Post-surgery** **Chairs: Sophie Lane and Ra'eesa Doola**	
Time	**Topic**	**Speaker**
0830-0850	Complexity of malnutrition in surgical patients (via videolink)	Prof. Isabel Correia
0850-0910	Feeding route options for supporting surgical patients	Prof. Stanislaw Klek
0910-0930	Implementation of ERAS - a surgeon's perspective	Dr. Iain Thompson
0930-0945	Implementation of ERAS in upper GI patients – treading new ground for implementation	Katie Benton
0945-1000	A new Model of Care in Gynaeoncology patients – the pragmatics of implementing and sustaining an ERAS MOC.	Ra'eesa Doola
1000-1010	Speaker Q&A	
1000-1040	**Morning tea & poster viewing**	
1040-1200	**Symposium 5: Nutrition Support in Obesity** **Chairs: Alice Murray and Todd Leeder**	
1040-1100	Biomolecular approach to consequences of bariatric surgery (via videolink)	Prof. Dan Waitzberg
1100-1220	Post-operative bariatric surgery – what to do when it goes wrong	Dr. Harald Puhalla
1120-1140	Nutritional requirements for the obese patient in ICU and complex situations	Dr. Suzie Ferrie
1140-1200	Nutritional requirements of the obese patient, how to escalate and advocate for appropriate care within the MDT	Louise Becroft
1200-1300	**Lunch & poster viewing**	
1300-1430	**Symposium 6: Cultural Considerations, collaboration and communication in nutrition care** **Chairs: Siong Pang and Dr. Stijn Soenen**	
1300-1345	What is culturally appropriate health care?	Dr. Shannon Springer
1345-1410	Multidisciplinary patient engagement for better outcomes	Lyndal Gray
1410-1430	Successes & challenges for nutrition support in India	Dr. Bhuvanka Shankar
1430-1500	**Afternoon tea & poster viewing**	
1500-1625	**Symposium 7: Expert Panel Discussion – Hot Topics in Nutrition Support**	
1500-1625	Moderator: Russel Canavan Panel Members: Prof. Stanislaw Klek (Surgeon), Alan Spencer (Dietitian), Ibolya Nyulasi, Lee-Anne Chapple	
	Nutrition Support: Navigating the conflicting evidence to move forward - Prof. Stanislaw Klek Showing the impact of nutrition: what are the right endpoints? - Lee-Anne Chapple Are Nutrition Support Teams effective in the modern Australasian clinical setting? - Panel discussion	
1625-1630	**Awards results announced & conference close by Prof. Ibolya Nyulasi, AuSPEN President**	

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PM2017.291 Pub: October 2017

2017 ABSTRACTS

Abstract presentations: Oral free papers and posters

The AuSPEN ASM program includes presentation of accepted abstracts, in either poster format or oral free paper presentation. This year's abstracts encompass a wide range of interesting projects across the clinical nutrition field. Delegates are encouraged to attend the concurrent free paper oral presentation session held between 10.45-12.30pm on Friday, 17th November and to view the posters and ask questions / discuss results with the presenters.

Awards

Eligible presentations will be evaluated by our AuSPEN judging panel for the two AuSPEN prizes:-

The Bob McMahon Prize will be preferentially awarded to an outstanding research presentation which may encompass:

- Basic science
- Clinical research
- Clinical epidemiology
- Systematic reviews are considered to be within the research category.

The David Russell Prize will be preferentially awarded to an outstanding Clinical Service Enhancement presentation which may encompass:

- Translational research / translation of research into practice
- Quality improvement programs/projects
- Service development projects
- Service/program analysis/evaluation

**Winners will be announced at the soical event on Friday the 17th November, 2017*

Poster Presentations

The Conference posters will be available for viewing in the Exhibition Area on the Friday and Saturday during the Morning Tea, Lunch and Afternoon Tea breaks. Poster presenters have been asked to be available for questions and discussions near their poster the lunch break on Friday, 17th November and during the lunch break on Saturday, 18th November.

List of Abstracts

The following pages show a list of all accepted abstracts in order of the first author's surname, their unique ID number, the page the abstract is shown in this program.

Disclaimer

The abstracts of the presentations were set individually by the authors. Text of the abstracts is as provided by the authors, and AuSPEN takes no responsibility for errors or incorrect data contained within the abstracts. The opinions, findings, conclusions and recommendations are those of the individual authors.

Information for Poster Presenters

Please ensure that your poster is mounted by 8.15am on Friday, 17th November in the poster display area. Removal of posters is to be done by 3.00pm on Saturday, 18th November. No responsibility can be taken for poster left on display after this time.

Poster presenters should ensure that they are present near their poster from from 12.30-2pm on Friday, 17th November for the main poster viewing session.

Presenters should also make themselves available for questions and discussion with conference delegates during the lunch break on Saturday, 18th November.

345748034

IMPLEMENTATION AND EVALUATION OF SELF ADMINISTERED MALNUTRITION SCREENING IN GASTROENTEROLOGY OUTPATIENTS

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1 Mater Group, South Brisbane, Australia

2 Mater Research Institute - The University of Queensland, South Brisbane, Australia

3 University of Queensland School of Medicine, Brisbane, Australia

Background: An audit of our tertiary centre inflammatory bowel disease (IBD) outpatient clinic revealed a malnutrition prevalence of 16%1 with no routine malnutrition screening in place. In collaboration with the multiple disciplines operating in the IBD clinic, dietetics led the development and implementation of a patient administered allied health (AH) screening tool, incorporating the Malnutrition Screening Tool (MST). The aim of the tool was to identify at risk patients to better facilitate nutrition and other discipline specific optimisation of care and to monitor efficacy of interventions in a longitudinal manner.

Methods: A multidisciplinary screening tool was developed in consultation with IBD Nursing staff and the AH team and approved by the relevant hospital committee. A literature review as well as patient feedback was used to inform this process. An audit of screening processes and responses took place between February and March in 2016.

Results: A well-constructed, easily administered tool was implemented. Audit results indicated the following:

	n	% of audit population
Patients attending clinic audited	114	
IBD	66	58
Consent to allied health referral	61	65
Positive MST	22	19
Within three months of positive MST screen:		
Seen a Dietitian	9	41
Dietitian appointment scheduled	6	27
Declined referral	5	23
Not seen/no appointment booked	2	9

Patients scoring higher on an MST were more likely to score highly on the Patient Health Questionnaire for Depression and Anxiety (PHQ-4) (p=<0.05). Of patients screening positive on MST only 3 were known to dietetics prior to the positive screen.

Conclusions: There are many challenges in implementing a screening tool and achieving adequate response from patients with self screening measures. However, malnutrition screening highlights patients not otherwise known to dietetics who may otherwise not be identified. Patients with a higher risk of malnutrition also displayed higher risk for depression and anxiety and their needs are bessed addressed in a multi-disciplinary setting.

References: Pulley, J. 2015. Journal of Gastroenterology and Hepatology, 30(S3): 163.

345687906

TOLERABILITY OF EARLY ENTERAL NUTRITION POST ALLOGENEIC STEM CELL TRANSPLANTATION- A RANDOMISED COMPARISON TO STANDARD CARE

Sarah Andersen1,2, Dr. Nicholas Weber1, Dr. Merrilyn Banks1, Teresa Brown1, A/Prof. Glen Kennedy1, A/Prof. Judy Bauer2

1 Royal Brisbane and Women's Hospital, Brisbane, Australia

2. The University of Queensland, Brisbane, Australia

Background:

Nutrition support is an important component of care to prevent malnutrition during allogeneic haematopoietic stem cell transplantation (HPCT) however there is no consensus on the optimal method of supplementary feeding. Some small non-randomised studies have indicated that enteral nutrition (EN) when compared to parenteral nutrition (PN) may improve patient outcomes however there remains some uncertainty about the tolerability of nasogastric feeding in this patient group.This randomised study aimed to determine whether proactive early EN is tolerable in comparison to standard care.

Methods:

Patients were recruited pre transplant and randomised to early EN or standard care. The EN group had a fine bore nasogastric tube inserted the day after stem cell infusion and feeding commenced at 30ml/hr. As oral intake declined the rate of feeding was increased to goal. If patients were intolerant of EN they were converted to PN if required. The standard care group commenced PN when oral intake was <60% of requirements for three days and was unlikely to improve for another week.

Results:

Forty four patients (mean age 48+14.4; 25 male, 19 female) were enrolled in the study (March 2015- May 2017) and randomised to EN (n=22) or standard care (n=22). In the EN group 11 tolerated EN (50%), 9 changed to PN and 2 withdrew from study. The median duration of EN was 9 days (1-22) and patients met 78% of goal nutrition. In the standard care group 68% required PN, the median duration was 12 days (6-33) and patients met 95% of goal nutrition.

Conclusions:

Half of patients receiving myeloablative allogeneic transplantation tolerate EN. As this will significantly reduce the use of PN and its associated complications and cost, EN should be considered as first line nutritional support.

345294228

DIETITIANS AT THE POINTY END: INSERTION OF NASOGASTRIC TUBES

Presenting Author 1 Rhonda Anderson,

2 Ms Laure Baumgartner

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1 Cairns and Hinterland Hospital and Health Service, Cairns, Australia

2 Cairns Hospital, Cairns, Australia

3 Cairns Hospital, Cairns, Australia

Background:

Currently within Cairns and Hinterland Hospital and Health Service (CHHHS), registered nurses (RN's) or medical officers (MO's) insert nasogastric tubes (NGT) and MO's order radiography to confirm tube placements. High workload demands often result in delayed tube placement and subsequent feeding in in- and outpatient settings. Credentialed dietitians are well placed to insert/manage NGT due to their involvement in enterally fed patients. To our knowledge this practice is yet to be implemented in Australia. The expected benefits are: improved patient access; reduced delays in commencing enteral feeding; reduced demand on RN's and MO's for NGT insertion/management and radiography orders; reduced patient presentations to Emergency Department for NGT insertions/ management; enhanced clinician skill mix. The aim was to propose and implement a model of care where dietitians insert and manage NGT utilising extended scope of practice.

Methods:

A learning package, which included theory, simulation and practical skills was developed collaboratively by nurse educators and dietitians; dietitian competency was assessed by Nurse Educators. CHHHS procedures and internal protocols for insertion/management of NGT, radiography orders and radiation safety training were developed in consultation with nursing, gastroenterology and medical imaging departments; clinical governance was provided by the Gastroenterology Department.

Results:

The new model of care was approved by CHHHS Allied Health Credentialing and Scope of Clinical Practice Committee in December 2016. Four senior dietitians have completed the learning package, with three having completed competency assessments with one in progress. These dietitians will now seek individual credentialing and once this is achieved the service will begin.

Conclusions:

This model of care utilising extended scope of practice by dietitians is approved by the CHHHS and credentialing for individual dietitians is in process. Once operational, the service will be evaluated utilising audit tools and stakeholder satisfaction surveys.

345302280

WHAT'S THE MISSING PIECE OF OUR PARENTERAL PUZZLE?

Presenting Author Emma Armstrong1, Lina Breik1, Erin Brennan1, Gene Chai1, Renata Mistarz1, Dr. Tissa Tandiari1, Dr. Graeme Duke1.

1Eastern Health, Melbourne, Australia

Background: Multidisciplinary team collaboration is the hallmark of excellence in parenteral nutrition (PN) therapy. This audit aimed to identify gaps in the PN service of a large metropolitan, university-affiliated, hospital (70,000 pa inpatient admissions).

Methods: A bimodal approach was undertaken: (1) Analysis of all internal audits in the last 12-months; (2) Literature review to determine best practice; summarised by the following:

(A) Does the PN team:

Include experienced physicians, dietitians, nurses and pharmacists?

Provide daily patient assessment?

Document PN orders and progress?

Facilitate transition to enteral nutrition?

(B) Does the PN team have:

Established performance/measurable goals?

Regular audits of complications e.g. electrolyte disorders, liver dysfunction, refeeding syndrome, malnutrition scores?

Simple, reliable, centralised data collection processes?

Regular review of service delivery and patient outcomes?

Results: The PN team is run by the Intensive Care Unit (ICU), Dietetics and Pharmacy. In 2016, 64 patients received 728 bags of PN. Average daily cost of formula was $187 and cost pa $68,068. Median number of days on PN was 8 (range 1 – 129). Majority were male (69%), surgical (73%) patients. A 6-month audit identified no sepsis or death complications, liver dysfunction in 37% and refeeding syndrome in 8%. The PN service scored 4/4 and 0/4 under Section (A) and (B), respectively, of the above questions. There were no performance goals or frequent audit processes.

Conclusions This audit identified specific gaps and measurable outcomes. The PN team is present and functioning but missing some crucial elements for a safe and effective service: clear goals and clinical audit procedures. The PN team is now better informed to determine these goals and measures to track progress.

References: Schneider, P.J., 2006. Nutrition support teams: an evidence-based practice. Nutrition in Clinical Practice, 21(1),62-67.

345729541

PREVALENCE OF MALNUTRITION, NUTRITIONAL PROFILE AND LENGTH OF STAY IN RENAL INPATIENTS

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2The Sutherland Hospital, Caringbah, NSW, Australia

Background:

Malnutrition is common among renal patients, and is associated with morbidity, mortality, and hospitalisation including increased length of stay (LOS). This study aimed to examine the relationship between the clinical profile, prevalence of malnutrition, and LOS in a cohort of renal patients admitted to an acute tertiary hospital.

Methods:

A retrospective audit was conducted on data routinely collected for patients admitted under the renal medicine team over 11 months. Data collected included demographics, clinical presentation, LOS, nutritional profile including Subjective Global Assessment (SGA) score, history of dietitian involvement and the need for dietitian follow up post discharge.

Results:

Records of 218 patients were reviewed. The average number of renal admissions was 12.8±3.9 per day, with 45.4±15.9% of patients under the care of the dietitian, either referred or automatic referral as per department policy.

The mean age of patients was 68.0±14.3 years. The prevalence of malnutrition was 63.6% (SGA=B and C). The LOS period between well nourished (SGA=A) vs. malnourished (SGA=B and C) was 12.2±11.5 vs. 16.5±22.6 days respectively, p=0.09 and was considered clinically significant. All malnourished patients required ongoing nutrition support by dietetics post discharge.

Conclusions:

Malnourished renal inpatients tended to have longer LOS which as implications for clinical practice. Malnutrition management prior to, during, and after hospital discharge is likely to make a difference to LOS. Therefore, a multidisciplinary team approach to early identification of malnutrition for dietetic referral is vital to ensure continuum of care.

345729553

THE VALIDITY OF MULTI-FREQUENCY BIOELECTRIC IMPEDANCE METHODS TO MEASURE BODY COMPOSITION IN OBESE PATIENTS: A SYSTEMATIC REVIEW

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2La Trobe University, Melbourne, Australia,

3Monash University Centre for Obesity Research and Education, Melbourne, Australia

Background: Obesity is a widespread burden affecting the community, with obesity rates growing globally. Although weight loss is advocated for overall better metabolic health, excessive loss of lean body mass may have serious metabolic consequences. Thus, accurate body composition assessment methods for obese patients are required to monitor fat loss and ensure lean muscle maintenance, enabling functional gains and quality of life improvements during aggressive weight loss programmes. Bioelectrical Impedance (BI) is a simple way of assessing body composition and has gained popularity for clinical use due to its convenience, low cost and instant results. The aim of this review was to investigate if BI is a valid tool to determine body composition in morbidly obese patients compared to reference methods.

Methods: MEDLINE, EMBASE, CINAHL and CENTRAL databases were searched until March 2017. Included studies were those published in English with obese (body mass index (BMI) ≥30kg/m2) adults (≥18 years) measuring body composition with BI methods in comparison to pre-determined reference methods.

Results:. 16 studies were eligible for inclusion. Sample sizes ranged from n= 15 to 157, with BMI 26 to 48kg/m2. BI underestimated Fat Mass (FM) and overestimated Fat Free Mass (FFM) in 10 studies in comparison to reference methods for obese subjects. The correlation of absolute values from BI and reference methods for FM and FFM were high (r=0.53-0.97). When adjustments for BMI were made to BI machine algorithms, the accuracy of body composition measurements were improved. Significant heterogeneity was evident amongst included studies and prevented meta-analysis.

Conclusions: Multiple variables, including study numbers, methodologies, algorithms and outcome reporting contributed a lack of consistency amongst studies and therefore validity of BI to assess body composition in obese patients is difficult to determine. This review highlighted the need for more robust studies that control confounding variables to establish clear validity statements.

345724017

ENTERAL NUTRITION SUPPORT AND TREATMENT TOXICITIES IN PATIENTS WITH HEAD AND NECK CANCER RECEIVING HELICAL INTENSITY-MODULATED RADIOTHERAPY WITH CONCURRENT CHEMOTHERAPY

Claire Blake 1, Teresa Brown 1, Anita Pelecanos 2, Laura Moroney 1, 3, Jennifer Helios 1, Brett Hughes 1,3, Liz Kenny 1,3

1 Royal Brisbane and Women's Hospital, Brisbane, Australia

2 QIMR Clive Berghofer Medical Research Institute, Brisbane, Australia

3 University of Queensland, Brisbane, Australia

Background: Weight loss in patients with head and neck cancer (HNC), often associated with inadequate nutritional intake, is affected by multiple factors including acute toxicities of treatment. Enteral nutrition support is often required to meet nutrition and hydration requirements during helical intensity-modulated radiotherapy with concurrent chemotherapy (chemoH-IMRT). Although highly sophisticated radiotherapy provides excellent limitation of dose to tissues not requiring treatment, acute toxicity still occurs within high dose volumes. The aim of the study is to determine the relationship between acute toxicities in patients receiving chemoH-IMRT and the requirement for enteral nutrition support.

Methods: Prospective study of patients with HNC, primarily oropharyngeal, with a proactive gastrostomy in situ undergoing chemoH-IMRT (n=74). Baseline dysphagia was defined as a Functional Oral Intake Scale score less than or equal to 5. Acute toxicity and enteral nutrition data were collected weekly during treatment using the CTCAE v4.0. Enteral nutrition intake was calculated as a percentage of estimated nutrition requirements.

Results: Enteral nutrition support was commenced in 88% (n=65) of patients. Oral mucositis, pharyngeal mucositis, dysguesia, thick saliva and baseline dysphagia were all significantly associated with the outcome of enteral feeding over time ($p<0.05$). Patients experiencing Grade 3 toxicities for dysphagia, pharyngeal mucositis, oral mucositis or thick saliva or Grade 2 or 3 nausea had the greatest propensity for enteral nutrition support of 50% or greater of estimated nutrition requirements ($p<0.05$).

Conclusions: There was a high rate of enteral nutrition in patients with HNC undergoing chemoH-IMRT. Requirements for enteral nutrition support was primarily associated with grade 3 acute toxicities related to treatment protocols. The results indicate that weekly monitoring of toxicities can be a useful predictor for clinicians to initiate enteral nutrition support.

345300391

ENTERAL NUTRITION – EVIDENTLY NOT!

Presenting Author Lina Breik1, Pratibha Ganu1, Erin Brennan1, Dr. Graeme Duke1

1Eastern Health, Melbourne, Australia

Background: Enteral nutrition (EN) in critically ill patients has "moderate" to "high" supporting evidence. This audit aimed to identify gaps in the current protocol of a large metropolitan, university-affiliated, hospital (70,000 pa inpatient admissions).

Methods: A multi-modal multi-site approach was undertaken, inclusive of; (a) a literature review, (b) a retrospective audit of 20 medical records (ie. patients intubated >48hrs), and (c) a fishbone anaylsis with intensive care unit (ICU) staff.

Results:

Aspect of EN	Current Practice	Best Practice
Nutritional adequacy	63%.	100%.
Starting EN rate	Varies 20-60mls/hr.	Target rate.
Prokinetic agent	Metoclopramide 10mg IVqid.	Metoclopramide 10mg IVqid PLUS Erythromycin 200mg IVbd.
Prokinetic duration	Clinical judgement.	Maximum 72hrs.
GRV threshold	200-250ml.	>500ml.
Monitoring intolerance	Only gastric aspirate volume.	Gastric aspirate volume and clinical signs of feed intolerance.

Conclusion: Variations exist in starting rate, prokinetic prescribing and gastric aspirate threshold between the sites and are suboptimal compared with best practice, evidently leading to inadequate nutrition provision. Education of staff and revision of the existing EN protocol to align with best practice is underway, aiming for complete implementation by March 2018.

References: Guidelines for the Provision and Assessment of Nutrition Support Therapy in the Adult Critically Ill Patient. Journal of Parenteral and Enteral Nutrition; February 2016 (40;2).

339848783

ASSESSING TREATMENT OPTIONS FOR INTESTINAL FAILURE PATIENTS USING TIME TRADE-OFF METHODOLOGY.

Sharon Carey1,2, Wendy Tu2, Lynn Jones1, Cherry Koh1,2

1Royal Prince Alfred Hospital, Sydney, Australia

2The University of Sydney, Sydney, Australia

Background: There are limited management options available in Australia for people with Type III intestinal failure, with home parenteral nutrition (HPN) being the main treatment option. This research aims to evaluate how many years of life people on HPN are willing to trade when presented with a range of treatment options, including those not readily available in Australia.

Methods: An interviewer-administered telephone survey was conducted on a cross sectional cohort of 19 HPN participants. The survey was designed to measure health-related quality of life (HRQOL) using a time trade-off methodology. Four different treatment options were presented, and participants decided how many years of life they would trade to have access to the treatment and hence a different health state. The four scenarios included optimization of current care; line infections; access to a glucagon-like peptide-2 (GLP-2) analog; and intestinal transplantation. Health state utility scores were calculated.

Results: The median health utility score for optimisation of current care and access to a glucagon-like peptide-2 (GLP-2) analog were lowest (0.5; range 0-1) meaning a greater desire for this treatment. Small bowel transplant had the highest median utility score (1.0; range 0-1) indicating less willingness for this treatment option.

Conclusions: This is the first known study to use time trade-off methodology in people with HPN. Results indicate that people requiring HPN make careful decisions when considering treatment options. Facilities providing HPN services should focus on optimisation of current care, which is highly valued by their patients.

339849148

DEVELOPMENT OF CONSENSUS ON MODELS OF CARE IN ADULTS WITH INTESTINAL FAILURE USING A MODIFIED DELPHI APPROACH.

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1 Royal Prince Alfred Hospital, Sydney, Australia 2 The University of Sydney, Sydney, Australia

Background: Currently, lack of evidence and ad hoc service delivery models means there is no coordinated or defined model of best-practice for adult Type III intestinal failure (IF) services in Australia. **The objective of this research was to** establish consensus on service delivery models for management of Type III IF within the Australian health care system and to identify barriers and enablers in moving towards this ideal model.

Methods: A modified Delphi methodology was utilized to survey experts working in Type III IF. Physicians, dietitians, nurses and pharmacists from all 19 adult Type III IF centres across Australia participated. The study consisted of two rounds of email administered questionnaires developed around four key areas of health service delivery: access to services, clinical care, service guidance and models of care. Responses were evaluated via inductive thematic approach. Experts reviewed the final report to consolidate consensus and validity.

Results: Consensus was achieved on the makeup of an ideal team, the need for guidelines and an ideal model of care for this patient group. However, further consultation is required in order to establish consensus around the use of home parenteral nutrition in the palliative oncology setting.

Conclusions: This research is the first to explore models of care for intestinal failure within the Australian setting. It allows a framework for health professionals, managers, policy makers, and consumer groups to move towards optimal management for Type III IF patients.

335058471

APPETITE AND NUTRIENT INTAKE IN SURVIVORS OF CRITICAL ILLNESS

Lee-anne S. Chapple 1,2,3, Luke M. Weinel 2, Yasmine Ali Abdelhamid 1,2, Matthew J. Summers 2

Thu Nguyen 1, Palash Kar 1, Kylie Lange 3, Marianne J. Chapman 1, 2, 3, Adam M. Deane 1,3,4

1Discipline of Acute Care Medicine, School of Medicine, University of Adelaide, Adelaide, Australia.

2Intensive Care Research Unit, Royal Adelaide Hospital, Adelaide, Australia.

3National Health and Medical Research Council of Australia Centre for Clinical Research Excellence in Nutritional Physiology and Outcomes, Adelaide, Australia.

4Intensive Care Unit, Royal Melbourne Hospital, Melbourne, Australia

Background:

Oral intake is diminished immediately after intensive care unit (ICU) discharge, yet factors affecting nutritional intake after hospital discharge have not been evaluated. We aimed to evaluate factors which determine nutritional status - appetite, dietary intake and gastric emptying - 3-months after ICU discharge.

Methods:

We conducted an inception cohort study comparing ICU survivors to healthy subjects. Following an overnight fast, all participants consumed a standardised carbohydrate drink, containing ^{13}C-octanoic acid, to measure gastric emptying. Dietary intake was assessed by recall of the preceding day and a standard weighed buffet meal 4-hours post-drink. Appetite was assessed pre-drink (fasting) and pre- and post-buffet using visual analogue scales.

Results:

Fifty-one ICU survivors (82% male; 70±9y; BMI 28±6kg/m^2) and 25 healthy subjects (60% male; 67±12y; BMI 27±4kg/m^2) were evaluated. From the 24-hour recall ICU survivors consumed less calories (ICU 1876 (708) vs. health 2291 (834) kcal; p=0.025) and had less preference for fat than healthy subjects (p<0.001). Oral intake of all macronutrients from the weighed buffet was similar in the two groups: calories (ICU: 658 (301) vs. health: 736 (325) kcal; p=0.149); protein (ICU: 37 (19) vs. health: 40 (17) g; p=0.275); fat (ICU: 23 (12) vs health: 26 (13) g; p=0.261); and carbohydrates (ICU: 69 (35) vs. health: 79 (42) g; p=0.141). ICU survivors reported lower fullness ratings regardless of time-point (p=0.041). There was no difference in the rate of gastric emptying between the two groups (p=0.216).

Conclusions:

ICU survivors reported less preference for fat and less calorie consumption than in health. However, actual measured intake of calories and macronutrients was similar in the two groups, as was the rate of gastric emptying. ICU survivors reported lower fullness ratings after the test meal, suggesting factors other than appetite may influence intake.

337486912

DIETITIAN PRESCRIBED NUTRITIONAL SUPPLEMENTS IN THE MEDICATION CHART LEADS TO INCREASED ENERGY AND PROTEIN INTAKES

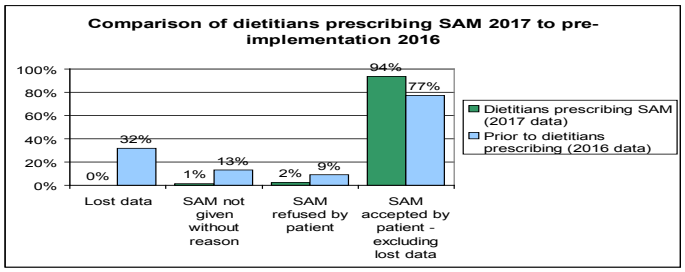
Megan Ritchie, Sally Courtice, John Parke

Queen Elizabeth II Jubilee Hospital, Brisbane, Australia

Background: Recent data indicates approximately 30% of hospital patients are malnourished, for some patients it is not possible to meet nutritional requirements through oral diet, standard nutrition supplements, and may not be appropriate for enteral feeding. Supplements as Medicine (SAM) is the provision of high energy (2kcal/mL) and protein supplements to patients in manageable amounts (typically 80mL three times/day or 60mL four times/day). The aim of this project was to evaluate the effectiveness of dietitians prescribing SAM directly into the medication chart.

Methods: The SAM process was evaluated in June 2017 and compared with 2016 results prior to dietitians prescribing. Medication and end of bed charts were audited.

Results: 8 patient charts were audited in 2017 (representing 143 occasions of SAM prescribed) compared with 19 patients in 2016.



Average energy and protein intake from SAM in 2017 was 1861kJ and 18.5g versus 2016 of 1533kJ and 15g.

Conclusions: Dietitians prescribing SAM in the medication chart leads to an increase in energy and protein intake. Prior to dietitians prescribing, lost documentation occurred in 32% of cases, it is presume that 1/3 of patients did not receive the supplements recommended. After prescribing commenced there was no lost documentation. Acceptance of SAM increased after prescribing from 77% (excluding lost documentation) to 94%. This increase in uptake led to an average increase in energy intake from 1533kJ to 1861kJ and protein intake of 15g to 18.5g. Dietitians prescribing SAM in the medication chart improves documentation, improves uptake of supplements by patients, and leads to an increase in energy and protein intake. Allowing dietitians to prescribe directly into the medication chart should be utilised as a strategy to assist in the treatment of hospitalised malnourished patients.

345712776

DIETARY FIBRE MODIFICATION WITH OR WITHOUT ANTIBIOTICS IN THE PREVENTION OF DIVERTICULITIS IN ADULTS WITH DIVERTICULAR DISEASE: A SYSTEMATIC LITERATURE REVIEW AND META-ANALYSIS.

Megan Crichton 1, Camilla Dahl 2, Julie Jenkins 3, Romina Nucera 4, Wolfgang Marx 5, Hannah Mackay 6, Skye Marshall 7

1, 2, 7 Bond University, Gold Coast, Australia

3, 4 Robina Hospital, Gold Coast, Australia

5 Latrobe University, Melbourne, Australia

6 Mater Hospital Brisbane, Brisbane, Australia

Background: The use of high dietary fibre intake and antibiotics have been hypothesised to play a role in the management of diverticular disease; however, dietary recommendations for the prevention of diverticulitis in those with diverticular disease are inconsistent and quality evidence is lacking. Therefore, this systematic review aimed to pool and appraise existing data to explore the effect of dietary fibre modifications with or without antibiotics on the development of acute diverticulitis, gastrointestinal symptoms and bowel habits in adults with diverticular disease.

Methods: Five electronic databases were searched for studies from database inception until March 2017. Studies were critically appraised and pooled using meta-analysis.

Results: 20 studies were included. Compared with placebo, ispaghula husk supplementation significantly increased daily stool weight by µ42g/day (95%CI:26-57g; P<0.00001); however, dietary fibre supplementation inconsistently improved gastrointestinal symptoms and transit times depending on baseline values, and no studies evaluated its role in preventing diverticulitis. Seven days to everyday per month for 12-24-months of dietary fibre supplementation had a 2.6 (95%CI:1.24-5.6; P=0.01) higher relative risk of diverticulitis compared to dietary fibre and poorly-absorbed antibiotic co-administration. Seven days every month for 12-24-months or 14 days of dietary fibre and poorly-absorbed antibiotic co-administration significantly decreased gastrointestinal symptoms compared with dietary fibre supplementation alone by a standardised mean of 1 point (scale of 0 to approximately 18) (95%CI:0.70-1.21; P<0.00001).

Conclusions: Dietary fibre supplementation may improve bowel function and gastrointestinal symptoms in those with diverticular disease; but its role in the prevention of diverticulitis is unknown. Although co-administration with poorly-absorbed antibiotics appears to have superior effects compared to dietary fibre supplementation alone; recommendations for this are not supported due to the high risk of bias in existing research.

345368122

THE VALIDITY OF PATIENT-LED SCREENING USING THE MALNUTRITION SCREENING TOOL (MST) IN THE CANCER CARE AMBULATORY SETTING

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Background: Malnutrition is prevalent in the cancer care ambulatory setting. Much of the existing literature and various international frameworks have demonstrated the benefits of nutrition screening in facilitating early prevention and treatment for patients at risk of malnutrition. The Malnutrition Screening Tool (MST) has been validated for use by healthcare professionals in cancer care to detect at-risk patients. However there is a gap in the literature regarding validation of patient-led screening with the MST against the Subjective Global Assessment (SGA).

Methods: A single site cross-sectional observational study was undertaken in an oncology day therapy unit at a Queensland metropolitan teaching hospital in a convenience sample of 201 patients attending the unit for chemotherapy or supportive therapies. Patient self-administered MST scores were collected and compared to the MST and SGA scores completed by dietitians.

Results: As indicated by the SGA score, 82% of patients were categorised as well-nourished (SGA A) in comparison to 18% as malnourished (SGA B or C). Conversely, 71% of patients were considered not-at-risk of malnutrition in comparison to 29% at-risk, according to the patient self-administered MST scores. The inter-rater reliability of the patient MST score with the dietitian MST score was high as indicated by an overall 94% agreement for risk category (0-1=not-at-risk; >=2=at-risk) and a correlation of 0.85. The ability of the patient-led screening with the MST to predict nutrition status was assessed and found to have a sensitivity of 94% and specificity of 85%. The positive predictive value was 0.58 and the negative predictive value was 0.98.

Conclusion: When administered by patients, the MST has been shown to be a simple and valid tool that can reliably identify patients as at-risk or not at risk of malnutrition.

345294126

TRANSLATION OF DIETITIAN-LED GASTROSTOMY MANAGEMENT MODEL OF CARE IN A REGIONAL FACILITY

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Background: Royal Brisbane and Women's Hospital (RBWH) has a well-established dietitian-led model of care (MOC) for dietitians' expanded scope of practice in management of gastrostomy devices1. In December 2015, a Cairns Hospital dietitian attended the RBWH training program; upon completion, credentialing in expanded scope of practice in the Management of Gastrostomy Tubes approved by the Cairns & Hinterland Hospital and Health Service (CHHHS) Allied Health Credentialling Committee. It is expected the implemented dietitian-led gastrostomy service at Cairns Hospital demonstrates a timely, appropriate and safe MOC in a regional hospital; and that staff and patients have a high level of acceptability and satisfaction with the service.

Method: Data has been collected on the nature and outcome of interventions delivered in the service and independently reviewed by a senior endoscopy nurse; along with supervision of practice. All patients were provided with a satisfaction survey on completion of their care. Staff satisfaction surveys will be disseminated in October 2017. Data collation is expected to be completed November 2017.

Results: At August 2017, 18 patients had received care from the service; all of the interventions trained to be delivered were provided in the MOC. The service potentially prevented an additional 19 occasions of service through provision of interventions to treat minor complications at a planned nutrition review that would have previously required referral to nursing or medical staff. Preliminary results of patient satisfaction surveys indicated excellent satisfaction with the service.

Conclusions: This study shows that expanded scope of practice models of care can be safely and appropriately implemented by dietitians in regional facilities with a high level of patient acceptability. This MOC improves access to gastrostomy care and decreases clinical transactions; presenting an opportunity for cost savings and efficiencies.

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345686519

EVIDENCE FOR DIETARY FIBRE MODIFICATION IN THE PREVENTION OF ACUTE, UNCOMPLICATED DIVERTICULITIS: A SYSTEMATIC LITERATURE REVIEW

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Background: Due to a lack of evidence regarding the dietary management of acute uncomplicated diverticulitis, practice varies for discharge nutrition recommendations, and may include modified dietary fibre diets, fibre supplementation, and/or probiotic supplementation. However, these therapies alone or in conjuction have not yet been sufficiently evaluated for the prevention of diverticulitis recurrence and impact on recovery; the lack of consistency may increase patient burden, health care costs and decrease efficacy and adherence. Therefore, this systematic review aims to review the evidence and develop recommendations for dietary fibre modifications, either alone or alongside probiotics, versus any comparator on reoccurrence, gastrointestinal symptoms and health care use for adults following an episode of acute, uncomplicated diverticulitis.

Methods: Intervention and observational studies in any language were located using five electronic databases up until March 31st, 2017, using a combination of keywords and controlled vocabulary. GRADE was used to evaluate the overall quality of the evidence and to develop recommendations.

Results: Three studies were included which used dietary fibre modifications and none used probiotic supplementation. Due to lack of consistent reporting, data could not be pooled. There was "very low" quality of evidence for using a high dietary fibre diet or supplements as opposed to a standard or low dietary fibre diet following resolution of an acute episode to improve reoccurrence and gastrointestinal symptoms. GRADE was used to develop clinical recommendations considering existing and generalised evidence, safety, preferences of stakeholders, and feasibility.

Conclusions: Health care providers should recommend a long-term high dietary fibre intake (meeting or exceeding the nationally recommended intake for gender and age) after the acute episode of uncomplicated diverticulitis has resolved (strong recommendation based on very low-quality evidence). Further well conducted randomised controlled trials are required.

343684839

A COLLABORATIVE APPROACH TO CARING FOR PATIENTS WITH JEJUNOSTOMY FEEDING TUBES: KNOWLEDGE, CONFIDENCE AND ATTITUDES OF NURSING STAFF

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Background: Many Upper Gastrointestinal Surgery patients will have a jejunostomy (JEJ) tube inserted for feeding, in accordance with best practice guidelines. However, JEJ tubes can be complex to manage and are prone to leakage, blockage, pain, skin breakdown and infection, which impacts patient morbidity and experience. A collaborative project was undertaken by dietetics and nursing staff, to assess current nursing knowledge, confidence and attitudes regarding the management of JEJ tubes, in order to target education.

Methods: 40 nurses who were working on the surgical ward during October 2016 were asked to participate in a 35 question survey. Quantitative data was analysed using percentage scoring for multiple choice questions regarding knowledge/ practice. Confidence/attitudes were assessed by 5 point Leichardt scale.

Results: The response rate was 55%. Results indicated varying practice regarding tube blockage and rotation. 30% reported they would contact the medical team as a first step in management of tube blockage. 40% were unsure regarding daily rotation. Knowledge regarding management of leakage varied, with 23% using gauze, 22% using silicone, 35% using foam, and 20% unsure. The majority responded correctly to questions regarding use of crushed medications, correct flushing techniques and tube positioning. 98% agreed/strongly agreed that the correct management of JEJ tubes, reducing tube blockage and leakage was important for patient care. Only 49% of staff responded as confident in their current skills in managing leakage and blockage.

Conclusions: Knowledge and confidence levels indicate the need for practice guidelines and targeted education to ensure correct, consistent practice. Staff feel strongly that it is important to correctly manage JEJ tubes, indicating they will be responsive to training. The results are being used to target educational intervention, aiming to improve patient morbidity and experience.

345613641

ROAD TO RECOVERY: NUTRITION CARE PATHWAY FOR UPPER GASTROINTESTINAL SURGICAL ONCOLOGY PATIENTS

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Background: Malnutrition is highly prevalent in Upper Gastrointestinal (UGI) malignancy patients, and guidelines recommend consistent nutrition screening and intervention. In 2016, Western Health Dietetics established a UGI Nutrition Clinic alongside UGI surgical/oncology clinics, updating the Nutrition Care Pathway (NCP) to address service gaps. This project aimed to evaluate the UGI Nutrition Clinic/NCP.

Methods: Retrospective audit of medical records was conducted. Nutritional status (weight loss, Body Mass Index (BMI)) and dietetics intervention (time, occasions of service (OOS)) in patients who underwent curative UGI malignancy resection, 12 months pre 2016 UGI NCP implementation (Group 1), and 12 months post implementation (Group 2) was compared.

Results: Age, BMI, gender and tumour types were similar in Group 1 (n=32) versus Group 2 (n=30). 100% of patients received inpatient dietetics postoperatively. 93% in Group 2 received preoperative immunonutrition compared to 80% in Group 1. Percentage weight loss was not different, contributed to by low yield/missing data.

57% in Group 2 received assessment at time of diagnosis, compared to 25% in Group 1. Dietitian input in radiotherapy/ chemotherapy increased from 78% to 100%. 78% of patients received review post neoadjuvant therapy, previously not provided. Feeding tube insertion intraoperatively increased from 30% to 80% in total gastrectomy/oesophagectomy patients.

Average dietetic outpatient time preoperatively increased from 2 minutes/4% of OOS pre implementation to 35 minutes/27% of OOS. Average OOS preoperatively increased from 1.7 to 4.5. 93% received follow up within 3 weeks post discharge, compared to 20% pre implementation. Average time increased from 19 minutes/0.4 OOS to 59 minutes/1.8 OOS. Post implementation, 4 feeding tube related admissions were avoided.

Conclusions: A UGI Nutrition Clinic and NCP significantly increases consistent, timely, effective nutrition care reflecting best practice. Determination of nutritional, quality of life and surgical outcomes is warranted.

345731757

CHEMOTHERAPY… THE OVERLOOKED TREATMENT IN HEAD AND NECK CANCER. A REVIEW OF NUTRITION OUTCOMES.

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Background

Common treatment for patients with oropharyngeal cancer is concurrent chemoradiotherapy. The systemic therapies that are used in combination with radiotherapy include cisplatin, cetuximab and carboplatin. This study aimed to explore the relationship between different systemic therapies and nutrition outcomes in patients with oropharyngeal cancer.

Methods

A retrospective audit of patients with oropharyngeal cancer undergoing (chemo)radiotherapy was completed over a 6-month period. Patients were divided into subgroups based on systemic therapy dose and regimen. Nutritional outcomes including weight loss during treatment, 4 weeks post treatment and hospital admissions were analysed.

Results

The audit involved forty-eight participants with oropharyngeal cancer, median (IQR) age 58.5 (52-68) years and 85% (n=48) male. Systemic therapy regimes included weekly cisplatin (CP, 25%), high dose cisplatin delivered in weeks 1, 4 and 7 (HDCP, 42%), weekly carboplatin (CB, 21%) and weekly cetuximab (CT, 12%). Weight change by systemic therapy regime revealed those receiving CP had the largest weight loss (mean (SD) at both time points, during treatment (10.07 (4.36)%) and at 4 weeks post-treatment (10.36 (5.04)%). Conversely, patients receiving CT alvarez.ella10@gmail.comlost the least amount of weight (mean (SD) both during treatment (3.66 (1.78)%) and at 4 weeks post-treatment (5.90 (3.32)%). There was no difference in weight loss during treatment between CB and HDCP groups.

Fifty-two percent of participants (n =48) required inpatient admission during treatment. Forty-four percent (n=25) of patients admitted received HDCP and 31% (n=25) received CP. Those requiring admission lost more weight during treatment (t=2.37, p=0.021) and 4 weeks post treatment (t=2.05, p=0.046) than those who did not require an admission.

Conclusion

This study showed a trend towards greater decline in nutritional outcomes for patients receiving cisplatin based treatment, compared to cetuximab or carboplatin. However, further research is needed.

345752281

NUTRITION - A MUCH BIGGER PLAYER IN CRITICAL CARE THAN WE THOUGHT?

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Background: Advanced glycation end-products (AGE) are glycated protein or lipid molecules acquired through endogenous formation and intake of exogenous sources1. Emerging evidence indicates that when bound to its receptor, RAGE, it can trigger an unbridled inflammatory response leading to failure of inherent control mechanisms causing extensive systemic and tissue inflammation which in turn is associated with adverse clinical outcomes in the critically ill2. Investigators hypothesise that nutritional formulae provision in critical care may contribute significant amounts of AGE to an existent endogenous pool and aim to quantify the AGE content of nutritional formulae so as to compare this to predefined low and high AGE diets1.

Methods: Samples of nutritional formulae were collected and batch analysed for AGE content using ultra performance liquid chromatography tandem mass spectrometry.

Results: Table 1: AGE content of formulae

	~Volume required*	CML (mg/d)	CEL (mg/d)	MG-H1 (mg/d)
Abbott Nutrition				
Glucerna	1.9L	18	11.2	63.3
Jevity + Fibre	1.9L	14.4	2.1	6.8
Nutricia				
Diason	1.8L	9.4	20.5	179.3
Nutrison Multifibre	1.8L	18.5	7.4	18.2
Nutrison Protein Plus Multifibre	1.5L	27.6	9.8	31.2
Pre-defined AGE diet[1]				
Low	NA	3.1	2	18
High	NA	4.2	3.1	24.6

*Based on estimated requirement for a 75kg person at 25kcal/kg

With the exception of Jevity, all other nutritional formulae contain, at a minimum, eighty percent more AGE than that found in a high AGE diet.

Conclusions: Nutritional formulae contain high levels of AGE when compared to pre-defined dietary thresholds. Dietary AGE coupled with endogenous production has the potential to exacerbate inflammation causing cell death and organ failure. Further prospective studies are needed investigating the role dietary AGE exert on clinical outcomes in critically ill patients.

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345735810

MALNUTRITION PREVALENCE AND ASSOCIATED OUTCOMES

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Background: Malnutrition is highly prevalent in hospitals and is associated with poorer outcomes. Malnutrition screening has been mandatory within Australian hospitals for over 5 years, however it receives significantly less attention compared to other risk outcomes such as pressure injuries and falls. The aims of this study were to assess compliance and accuracy of malnutrition screening, determine malnutrition prevalence and associations with length of stay (LOS), falls and pressure injuries.

Methods: A one day point prevalence audit was undertaken across a tertiary hospital in Melbourne. Data collection included demographics, malnutrition risk (Malnutrition Screening Tool) (MST), nursing compliance and accuracy with screening, and appropriate dietitian referrals. A malnutrition assessment (Subjective Global Assessment) was completed for all patients deemed at risk, and 30 day outcome data was collected including LOS, falls and pressure injuries.

Results: Of the 306 patients included, 52% were male (n=160), median [IQR] age was 71 [52-80] years, BMI was 25.2 [22.3-29.3] kg/m2 and LOS was 13 [6-27] days. Compliance with malnutrition screening on admission was 78% (n=239), of which 71% (n=170) were accurate. Only 58% (n=19) of at risk patients were referred to a Dietitian. The prevalence of malnutrition was 36% (n=109), which was greater than the prevalence of both falls (5.2%, n=16) and pressure injuries (4.6%, n=14). There was a significant difference in the median LOS (days) for malnourished patients (Md 17, n=109) compared to well-nourished patients (Md 11, n=197) (U = 8442, z = -3.10, p=.002). Malnourished patients had a 10 fold increased risk of developing a pressure injury, Relative Risk [CI] 10.8 [2.5-48] p=0.0001.

Conclusions: The accuracy of screening and dietetic referral rates for at risk patients was poor. Malnutrition was associated with increased length of stay and pressure injuries. Improved awareness of malnutrition and associated consequences is required.

345715854

SARCOPENIA IS ASSOCIATED WITH SEDENTARY BEHAVIOUR AND PHYSICAL ACTIVITY IN PEOPLE WITH MALIGNANT PLEURAL MESOTHELIOMA

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Background: People with malignant pleural mesothelioma (MPM) have low levels of physical activity (PA) and often experience muscle wasting (sarcopenia), however, the impact of sarcopenia on sedentary behaviour and PA has not been examined. Therefore, this study aimed to investigate the relationship between sarcopenia, sedentary behaviour and PA in people with MPM.

Methods: Sarcopenia was defined as appendicular muscle mass <7.26 kg/m2 for men and <5.45 kg/m2 for women, as estimated by Dual-Energy X-Ray Absorptiometry. Sedentary behaviour and PA were measured using an Actigraph GT3X+ accelerometer, worn by participants 24 hr/day for 3 days, and classified as sedentary (<100 counts/minute (cpm)), light (100-1952 cpm) or moderate and vigorous (MVPA; >1952 cpm).

Results: Twenty-four people with MPM had complete data available for analysis (mean±SD; age 68.3±7.5 years, BMI 26.3±3.8 kg/m2, 20 male). Twelve people (50%) were sarcopenic. Those with sarcopenia, compared to those without sarcopenia, spent a significantly higher proportion of time in sedentary behavior (71.8±10.2% vs. 62.6±9.4%; p=0.031), and a lower proportion of time in light activity (26.9±9.9% vs. 35.5±9.4%; p=0.040). The proportion of time spent in MVPA was low and did not differ between the two groups (median [IQR]; 0.7 [0.3-2.0]% vs. 1.6 [0.4-3.2]%, p=0.299). Those with sarcopenia had fewer bouts of light activity of 5 to <10 min and 10 to <20 min duration (9.6±5.7 vs. 14.7±5.4; p=0.034 and 2.2±2.2 vs. 4.4±1.9; p=0.017, respectively).

Conclusions: In this study, people with MPM who had sarcopenia were significantly more sedentary and spent less time in light activity, particularly at longer durations. This raises the possibility that sarcopenia contributes to an impaired ability to participate in PA. Nutrition, exercise and pharmacological interventions that address sarcopenia could be effective for increasing PA levels in this population.

345729212

THE EFFECT OF POLYPHENOLS ON CARDIOVASCULAR RISK FACTORS IN HAEMODIALYSIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: End-stage kidney disease is a major health burden worldwide and is a strong risk factor for sudden cardiac death. Polyphenol supplementation has been suggested to reduce cardiovascular risk factors in haemodialysis patients. The aim of this systematic review was to pool and evaluate the current evidence for polyphenol interventions for cardiovascular risk reduction in haemodialysis patients.

Methods: The Cochrane Library, MEDLINE (vis Scopus), Embase, and CINAHL were searched for double-blind placebo-controlled randomised trials up until 29 June 2017. Phenol-Explorer 3.6 database was used to inform known polyphenol-rich interventions. Treatment effect was quantified by meta-analysis for measures of lipid profile, inflammation, oxidative stress, and blood pressure. Risk of bias was assessed using the Cochrane Collaboration Risk of Bias tool and quality of the body of evidence assessed by the GRADE methodology.

Results: Twelve studies were included which utilised the polyphenol-rich supplements soy, cocoa, pomegranate, grape, and turmeric in powder or juice form. Risk of bias across studies was mostly low; though randomisation and allocation was poorly described in most studies. Polyphenol interventions significantly improved diastolic blood pressure (MD -5.62mmHg [95% CI -8.47, -2.78]; I2=2%; p=0.0001; n=4 studies; n=245 participants; GRADE: moderate), triglyceride levels (MD -26.52mg/dL [95% CI -47.22, -5.83]; I2=57%; p=0.01; n=4 studies; n=191 participants; GRADE: very low), and oxidative stress (myeloperoxidase) (SMD -90.1 [95% CI -135.8, -44.4]; I2=0%; p=0.0001; n=2 studies; n=126 participants; GRADE: high). Improvements in other measures of haemodynamics and lipid profiles were significant with large effect sizes in sub-samples with hypertension and hypercholesterolaemia respectively (not pooled).

Conclusions: The results suggest polyphenol-rich supplementation may improve cardiovascular risk markers in haemodialysis patients, especially those with existing cardiovascular disease. Further studies of sufficient duration are required to establish efficacy and allow for recommendation of particular polyphenol types and dosages.

345728285

MEASURED ENERGY EXPENDITURE IN CRITICALLY ILL BURN PATIENTS CORRELATES WITH TIME POST-INJURY BUT NOT BURN SIZE

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Background: Clinical guidelines for both critical illness and burn injury advocate the measurement of energy expenditure (EE) by indirect calorimetry (IC) to guide energy provision; however prediction equations are still widely used where IC is unavailable or not feasible. Aims: (1) to investigate how measured EE (mEE) changes over time in burn injury; (2) to compare mEE with predicted energy requirements (predER).

Methods: Data were retrospectively analysed on burn patients admitted to an Intensive Care Unit (ICU) between 2013-2015, in whom IC was performed to measure EE (Quark, Cosmed). mEE was divided by predicted basal metabolic rate (Schofield equation) to calculate degree of EE elevation (mEE%predBMR). predER was calculated using Schofield, Harris-Benedict, Ireton-Jones and Curreri equations, adjusted using published stress factors for burn injury. Bland-Altman analysis compared bias between mEE and predER. Spearman's correlation coefficients assessed predictors of mEE%predBMR and mEE expressed as kJ/kg (mEEkJ/kg) and correlation between bias and day post-burn.

Results: Twnety-nine burn patients (median[IQR] age 46[28-61]years, %TBSA burn 37[18-46]%) underwent IC on 1-4 occasions (46 measurements total, up to day 38). Mean±SD mEE was 9752±2089kJ/day; or 130±35kJ/kg/day. Mean±SD mEE%predBMR was 142±33%. Both mEE (r=0.42, p=0.004) and mEE%predBMR (r= 0.35, p=0.016), but not mEEkJ/kg (r=0.28, p=0.06) correlated positively with day post-burn. %TBSA did not correlate with mEE, mEE%predBMR or mEEkJ/kg. Bland-Altman Analysis displayed substantial variability between mEE and predER, with clinically important overestimation for three equations and wide 95% limits of agreement (LOA) for all equations (Table). Overestimation of EE was more marked early post-burn whilst underestimation was observed from day 7.

Prediction Equation	*Mean bias(kJ/day) (predER – mEE)*	*95% LOA (kJ/day)*	*Correlation between bias and day post-burn*
Schofield	-54±2373	-4802 to 4692	r=0.33, p=0.03
Harris-Benedict	1728±2784	-3839 to 7296	r=0.30, p=0.04
Ireton-Jones	1276±2092	-2907 to 5460	r=0.48, p=0.001
Curreri	4476±3402	-2327 to 11280	r=0.18, p=0.24

Conclusions: There are clinically important discrepancies between measured energy expenditure and prediction equations in critically ill burn patients. The use of IC in burn injury may minimise the risk of over- and underfeeding compared to prediction equations.

345716654

DOES BARIATRIC SURGERY CAUSE MICRONUTRIENT DEFICIENCY?: A SYSTEMATIC REVIEW

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Background: The restrictive and/or malabsorptive nature of bariatric surgery increases the risk for micronutrient deficiencies. This systematic review aimed to identify the evidence for vitamin A, B1, C or E deficiencies associated with bariatric surgery.

Methods: Medline, CINHAL, Embase were searched for articles that reported on micronutirnet deficiency rates before and up to 12 months after adjustable gastric band (AGB), sleeve gastrectomy (SG) and/or gastric bypass (GB). Data was extracted and analysed independently by two authors. PRISMA and MOOSE frameworks were utilised with NHMRC evidence hierarchy and the American Dietetic Association (ADA) assessment of bias tool were used to assess the quality of articles.

Results: Nine eligible studies investigating SG (n=8) and AGB (n=1) all were level IV studies either neutral or negative quality. Of the 16 eligible articles in GB, n=15 were level IV studies, either neutral or negative quality and n=1 was a level II study, positive quality. No significant risk of vitamin A, B1, C or E deficiency was found after AGB. The literature suggests a decreased risk of vitamin C deficiency and increased risk for vitmian B1 deficiency after SG and GB. For vitamin A, after GB there appears to be an increased risk of deficiency at 6 months postoperatively, which improves at 12 months. No consistent results were found for vitamin A in SG or vitamin E in SG or GB. Limitations to all studies included no monitoring for inflammation, limited information on micronutrient intake and surgical technique and inconsistent definitions of deficiency.

Conclusions: This literature suggests that SG and GB may increase the risk of vitmian B1 deficiency and GB may increase the risk of vitamin A deficiency. Future research is needed to investigate confounders to serum vitamin A, B1, C and E.

345720847

A SYSTEMATIC REVIEW AND META-ANALYSIS OF THE CRITERION VALIDITY OF NUTRITION ASESSMENT TOOLS FOR DIAGNOSING PROTEIN-ENERGY MALNUTRITION IN THE OLDER COMMUNITY SETTING

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Background: Accurate diagnosis is a key step in managing protein-energy malnutrition. This review seeks to determine the criterion (concurrent and predictive) validity and reliability of nutrition assessment tools in making a diagnosis of protein-energy malnutrition in community-living older adults.

Methods: A systematic literature review was undertaken using six electronic databases in September 2016. Studies in any language were included which measured malnutrition via a nutrition assessment tool in adults ≥65 years living in their own homes. Data relating to the predictive validity of tools were analysed via meta-analyses. GRADE was used to evaluate the body of evidence.

Results: There were 6,412 records identified, of which eight papers were included. Two studies evaluated the concurrent validity of the Mini Nutritional Assessment (MNA) and Subjective Global Assessment (SGA) and six evaluated the predictive validity of the MNA. The quality of the body of evidence for the concurrent validity of both the MNA and SGA was very low. The quality of the body of evidence for the predictive validity of the MNA in detecting risk of death was moderate (RR: 1.92 [95%CI: 1.55-2.39]; P<0.00001; n=2,013 participants; n=4 studies; I2: 0%). The quality of the body of evidence for the predictive validity of the MNA in detecting risk of poor physical function was very low (SMD: 1.02 [95%CI: 0.24-1.80]; P=0.01; n=4,046 participants; n=3 studies; I2:89%).

Conclusions: Due to the small number of studies identified and no evaluation of the predictive validity of tools other than the MNA, there is insufficient evidence to recommend a particular nutrition assessment tool for diagnosing protein-energy malnutrition in older adults in the community setting. High quality diagnostic accuracy studies are needed for all nutrition assessment tools used in older community samples, including measuring of health outcomes subsequent to nutrition assessment by the SGA and PG-SGA.

345601092

THE EFFECT OF RESVERATROL ON COGNITIVE PERFORMANCE: A SYSTEMATIC LITERATURE REVIEW AND META-ANALYSIS.

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Background: Due to the increasing burden of age-related cognitive decline, interventions that can improve cognitive performance are of interest. Resveratrol, a plant derived polyphenol, has been reported to improve cognitive performance in animal models and has recently been investigated in several clinical trials. The aim of this systematic review was to evaluate clinical trial data regarding the effect of resveratrol on cognitive performance.

Methods: In accordance with PRISMA guidelines, a systematic literature review and meta-analysis was conducted using the following databases: MEDLINE, CINAHL, Cochrane, EMBASE and Proquest. Studies included in this review stipulated that the independent variable was resveratrol and used outcome measures of cognitive performance. A meta-analysis was conducted to determine treatment effect on the following cognitive domains and mental processes: processing speed, number facility, mood, and memory. Risk of bias was assessed using the Cochrane Collaboration Risk of Bias tool; and quality of the body of evidence assessed by GRADE.

Results: Ten clinical trials were included. Three studies reported resveratrol to significantly improve some measures of cognitive performance, two reported mixed findings, and five reported no effect. When data was pooled, resveratrol significantly improved delayed recognition, a measure of working memory (SMD 0.39 [95% CI 0.08, 0.70]; I2=0%; p=0.01; n=3 studies; n=166 participants; GRADE level: moderate) and negative mood (SMD -0.18 [95% CI -0.31, -0.05]; I2=0%; p=0.006; n=3 studies; n=163 participants; GRADE level: moderate). Included studies generally had low risk of bias and study outcomes were of moderate or high quality. There was considerable heterogeneity in the methodology of the included studies regarding the intervention length, and participant age and disease status

Conclusion: The results of this systematic review indicate that resveratrol might improve select measures of cognitive performance; however, the current literature is inconsistent. Future studies are recommended to focus on long-term supplementation and adjustment for existing limitations such as dietary polyphenol intake.

345273811

A MODEL FOR ESTABLISHMENT OF A DIETITIAN LED GASTROENTEROLOGY CLINIC IN A LARGE TERTIARY HOSPITAL IN AUSTRALIA

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Background:Models of care utilizing allied health practitioners working in an extended scope of practice (ESP) as the first point of contact for patients have proven effective in managing waitlist demand in a range of specialities. Key features in the establishment of a dietitian led gastroenterology clinic (DLGC) are described.

Methods: A business concept was developed for a DLGC to provide care for a select cohort of gastroenterology patients. Development of eligibility criteria was based on the Queensland Gastroenterology Clinical Prioritization Criteria 2016. An audit of waitlists was performed, and eligible patients offered an appointment in the DLGC. After clearance of the initial backlog, ongoing triaging and reallocation to the DLGC was conducted by the GE consultant.

Results:The eligibility criteria developed for the DLGC included category 2, <50 years of age with dyspepsia/heart burn, reflux, abdominal pain, constipation, diarrhoea, or altered bowel habits and no alarm symptoms. 346 new and 272 review patients were seen over the initial 12 months, representing 82% of category 2 and 29% of all new general gastroenterology patients. The dietitian organised screening pathology under ESP. Patients were provided with dietary and lifestyle management strategies and to date, 68% (234/346) of patients have been discharged to the care of their GP with satisfactory resolution of symptoms. 28 patients (8%) were assessed as requiring medical review and were triaged back to the gastroenterologist. Enablers for successful establishment included alignment with broader hospital and health service strategic objectives, strong support from management, positive relationships between stakeholders and an opt-out process.

Conclusions: A model for the formation of a DLGC, along with enablers for successful implementation has been established. This may be used elsewhere to address outpatient gastroenterology service demand pressures.

345274333

RETROSPECTIVE EVALUATION OF A DIETITIAN LED GASTROENTEROLOGY CLINIC AND ITS IMPACT ON A TERTIARY GASTROENTEROLOGY SERVICE IN SOUTHEAST QUEENSLAND

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Background: New models of care are needed to meet growing demand for gastroenterology specialist services and reduce unacceptably long wait lists, within budgetary constraints. The dietitian-led gastroenterology clinic (DLGC) was one of a number of initiatives undertaken within our health service to address these concerns.

Methods: The service was evaluated through a mixed methods approach, comprising an audit of gastroenterology waitlists pre- and post-DLGC implementation, calculation of estimated costs for service provision to eligible patients via each model, chart audit of patient characteristics and a survey of patient satisfaction with care received.

Results: Pre-post comparison was conducted against a background of rising service demand, with a 25% increase in referrals over the study period. For DLGC–eligible patients, the average wait for service decreased from 160 to 33 days, and the percentage of patients in breach of clinically recommended wait times reduced from 74% (76/103, median breach days = 92) to zero. The flow on effect of medical specialist availability to see more complex and urgent patients was reflected in the reduction in wait time for non-DLGC eligible, general gastroenterology patients from 166 to 70 days. Service provision via the DLGC was costed at less than 60% of average gastroenterologist consultation, based on staff salaries. Additional savings may have been realised from a reduction in the number of colonoscopies and gastroscopies (estimated $1200-1900 per procedure), for which most of the 346 new patients seen in the DLGC were originally referred. Patient surveys indicated a high level of satisfaction with the service received in the DLGC.

Conclusions: This model of care effectively assisted in the management of gastroenterology waitlists. It improved patient access to care whilst displaying significant cost saving potential.

345617107

ASSESSING THE AGREEMENT BETWEEN PATIENTS AND DIETITIAN, AND THE USABILITY OF THE PG-SGA AND PT-GLOBAL APP IN THE AUSTRALIAN ONCOLOGY SETTING

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Background: In Australia, dietitians have been trained to administer the PG-SGA in its entirety. In 2014, the electronic version of PG-SGA (Pt-Global app) was released. The mode in which this tool is administered varies internationally and can differ within countries and settings. The aim of this study was to evaluate the agreement between patient versus dietitian-administered patient-generated sections of PG-SGA and PtGlobal app tools, and to assess the usability, timing and assistance required to complete the patient-generated section of both tools.

Methods: Cross-sectional study of 200 consecutive adult patients receiving ambulatory anticancer therapy at an Australian tertiary hospital. Patients were randomised into four groups: two using the PG-SGA and two the Pt-Global app. Agreement between patient and dietitian-administered PG-SGA short form (SF) scores, nutrition impact symptoms (NIS) scores and Global Ratings for both tools were tested. The usability of, time and assistance required to complete each tool was also investigated.

Results: Irrespective of the tool, there was excellent agreement between patients and dietitian-administered scores for the PG-SGA SF (ICC>0.89), NIS scores (ICC>0.079) and Global Rating (K>0.82). Median time to completion of the SF was significantly longer in the patient-administered versus dietitian-administered SF in both tools. Patient-generated section of both tools were completed in <4 min. Assistance to complete the SF when patient-administered was required by 46.5% Pt-Global app versus 31.3% of PG-SGA participants.

Conclusion: Patient versus dietitian-administration scores and global ratings of both the PG-SGA and Pt-Global app have excellent agreement with only marginal differences in time to complete, suggesting that either can be used interchangeably in practice.The feasibility of implementing the patient-generated component for routine nutrition screening should be assessed given the proportion of patients that required assistance.

345711531

PANCREATIC EXOCRINE INSUFFICIENCY AND NUTRITIONAL OUTCOMES AFTER PANCREATOC RESECTION.

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Background:

Pancreatic resection (PR) is associated with the development of pancreatic exocrine insufficiency (PEI) and its sequelae including malnutrition, fat-soluble vitamin deficiency, and osteoporosis. A multidisciplinary clinic was established at our institution in November 2016 for the purpose of diagnosis and management of PEI through standardised nutritional assessment and initiation of pancreatic enzyme replacement therapy (PERT). In this study, we aimed to define the rate of PEI and nutritional abnormalities in an Australian cohort of patients who underwent PR.

Methods:

Data from all patients who attended our clinic for PEI and nutritional assessment were included for analysis as part of a prospective observational study. Clinical data were prospectively obtained from all patients as part of a proforma assessment of diet, PERT compliance, anthropomorphic parameters, and measures of frailty and sarcopoenia. Laboratory data were also prospectively collected including assays for micronutrients, faecal elastase-1, HbA1c, and bone mineral density scans.

Results:

Seventeen patients were included, fifteen of whom had laboratory and bone results available for analysis. Eleven patients had a faecal elastase-1 <100ug/g faeces (severe PEI), and ten patients had at least one micronutrient deficiency. Five patients had osteoporosis, and three patients had a HbA1c >7%, mandating referral to an endocrinologist. Nine of seventeen patients were assessed as malnourished.

Conclusions:

Pancreatic exocrine insufficiency, micronutrient deficiency, and osteoporosis are highly prevalent sequelae of pancreatic resection. A dedicated multidisciplinary team approach in the management of PEI and nutrition is essential for the holistic management of these patients.

345691174

THE IMPACT OF PANCREATIC RESECTION ON QUALITY OF LIFE – AN OBSERVATIONAL COHORT STUDY

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Background:

Patients undergoing pancreatic resection endure long term morbidity due to the effects of pancreatic exocrine insufficiency (PEI), altered gut motility and pancreaticobiliary and gastroenteric reconstruction. In this prospective observational study, we aimed to define the impacts on quality of life in patients who underwent pancreatic resection.

Methods:

All patients who underwent pancreas resection at our institution from November 2016 have been referred to our multidisciplinary PEI clinic after surgery, but not all have attended. Data from patients who attended this clinic were included for analysis. All patients completed a questionnaire prior to their first clinic appointment, namely QLQ-C30 – a validated patient-based quality of life instrument comprising 30 items that scale physical, role, cognitive, social and emotional function along with severity of fatigue, pain, nausea and vomiting. Scores were compared with published data on age-matched healthy controls.

Results:

Seventeen patients have so far been reviewed at our clinic and included in this interim analysis. No significant difference was found in overall quality of life (p=0.55), physical (p=0.10), emotional (p=0.54), and social functioning (p=0.17), pain (p=0.61), and dyspnoea (p=0.38) scores compared with healthy controls. The following parameters were found to be significantly worse in this cohort than healthy controls (p<0.05): role functioning, cognitive functioning, fatigue, insomnia, appetite loss, constipation, and diarrhoea.

Conclusions: Whilst patients who have had pancreatic resection report similar overall quality of life outcomes to healthy controls, specific parameters particularly relating to gastrointestinal function are reported as significantly worse.

345759959

PRE-OPERATIVE MALNUTRITION IS A PREDICTOR OF POST-OPERATIVE OUTCOMES IN PERITONECTOMY SURGERY

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Background: Malnutrition is associated with increased risk of post-operative complications, morbidity and length of stay (LOS) in patients undergoing surgery for abdominopelvic malignancy. There are few studies that explore perioperative nutrition status in patients undergoing Peritonectomy surgery for gastrointestinal or gynecological peritoneal surface malignancy (PSM). This study aimed to determine if preoperative malnutrition, assessed using the Subjective Global Assessment (SGA), was associated with post-operative morbidity or LOS in patients undergoing Peritonectomy surgery.

Methods: A retrospective analysis of prospective data collected for a cohort of patients who underwent Peritonectomy surgery from February 2016 until March 2017. Anthropometry, SGA and handgrip strength (HGS) were collected pre-operatively. Thirty day post-operative outcomes were graded according to Clavien-Dindo, major morbidity included grade 3 or 4 complications.

Results: SGA scores and post-operative data was available for 102 patients (mean age= 55 years), HGS was available for 71 patients. The median peritoneal cancer index (PCI) indicating PSM spread and severity was 14 (IQR 6-29.25) and the median LOS was 17 days (IQR 12.5- 27).

Pre-operative prevalence of malnutrition was 32%, weight loss was reported by 34% of patients and 53% of patients had reduced HGS on at least one hand. Pre-operative weight was similar in well-nourished and malnourished patients; however a higher proportion of malnourished patients (46%) had symptoms of ascites or small bowel obstruction compared to well-nourished patients (17%) (2=9.0, P=0.03).

PCI was higher in malnourished patients (17, IQR 10-32) compared to well-nourished patients (13, IQR 5.5-27.5) (P=0.15). Major morbidity rates were higher in malnourished patients (49% vs 33%) however this did not reach statistical significance (2 =2.17, P=0.14). Malnourished patients experienced significantly longer LOS (26 days (IQR 16.25-31.5) vs 15 days (IQR 12-23) (P=0.002)).

Conclusions: Malnutrition is prevalent in patients undergoing Peritonectomy surgery and is associated with longer hospital LOS. A higher symptom burden and trends toward higher rates of major morbidity were also seen in malnourished patients. Collaborative prospective research into improving patient outcomes through perioperative nutritional support is warranted.

344826182

CHILDHOOD OBESITY:AN EMERGING CHALLENGE IN INDIA

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Background: Childhood obesity is a global phenomenon affecting all socio economic groups, irrespective of age, sex or ethnicity.

Objective: The aim is to analyse the dietary pattern and food behaviour in children with obesity.

Method: A prospective study was conducted from January -December 2016 in 95 children with Body mass index > 95th percentile attending the outpatient department. Demographic data, 24 hour diet recall and food frequency was recorded. SPSS 20 used to investigate the association between eating patterns and obesity.

Result: Children (45 boys & 50 girls) from the age group of three to seventeen years were included. Dietary assessment reveals, 50.5% (n= 48) children consumed excess calories, 21% (n = 20) consumed the actual requirement and 28.4% (n= 27) were taking lesser calories than their recommended dietary allowances (RDA). Protein requirements were met in 58.9 % (n=56) children, 10.5% (n=10) had excess protein and 30.5 % (n=29) consumed less protein. 61% (n=58) children consumed excess fat, 22% (n=21) met their RDA and 16.8% (n= 16) consumed fat lesser than their requirement. Obesity was significantly higher in 10-15 years age group. In this group, females consumed additional calories than their counterparts. The sex difference in food habits were found to be significant (P<0.05) with root of obesity on the basis of food habits in this age group.

Conclusion: The study reveals that not all obese children consume excess calories and fat. There might be other factors like reduction in daily exercise, psychological factors and genetics, contributing to obesity which needs to be evaluated. There are significant variations in the amount of calorie, protein and fat consumed in children with obesity. Hence each individual should have a detailed dietary assessment and individualised diet plan should be prescribed.

Key words: Childhood obesity, Dietary assessment

Conflict of Interest : None

345067569

DOES HYPOCALORIC FEEDING IMPACT THE OUTCOME OF CRITICALLY ILL WITH INCREASED BMI?

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In modern critical care, the paradigm of therapeutic nutrition is replacing traditional support in nutrition and outcome research in obese critically ill patients suggests a link between hypocaloric feeding and mortality. This study aims to investigate the relationship between hypocaloric feeding and early weaning and mortality of critically ill patient with increased Body Mass Index (BMI).

METHODS

A prospective observational study was conducted in a multi-centric critical care unit (CCU) in a tertiary care hospital from January to December 2014. The sample was limited to patients who were in CCU for at least 3 days on enteral feeding. Data including demographics, BMI, baseline nutritional status using subjective global assessment, severity of illness (i.e., Acute Physiology and Chronic Health Evaluation (APACHE II) score), nutrition delivery and clinical outcomes were recorded. Statistical analysis using fisher's exact test, chi square test, and Pearson correlation were performed using SPSS 11.0 version.

RESULTS

Out of 136 patients, comprising of 70.5% males and 29.5% females, aged 57.6±14.8y were classified as 53% overweight, 44% obese, and 3% morbidly obese according to BMI. On admission, the mean Glasgow Coma Scale and APACHE II score were 9±4.943, 22±8.46 respectively. Medical diagnostic classification revealed 29% had respiratory failure, 9% renal, 10% cardiac, 10% sepsis, 5% sleep apnea and 37% others. The mean energy and protein delivered were 1223±273 and 50.5±13.42 respectively, derived a positive correlation with average CCU (10.5±7.52) and hospital length of stay (16.9±11.85), which was statistically significant ($p < 0.005$). Average nutrition delivery had a strong positive correlation with length of mechanical ventilation ($p<0.05$), stating the impact of hypocaloric feeding on early weaning process.

CONCLUSION

Hypocaloric regimens can be considered in over-weight and obese critically-ill patients, as it improves clinical outcome like length of stay and ventilation-free days.

345711028

NUTRITIONAL ASSESSMENT AND SUPPORT IN PAEDIATRIC CANCER PATIENTS UNDERGOING CHEMOTHERAPY

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Background: To prevent malnutrition during cancer treatment, early identification and goal-directed intervention is essential. We aimed to study the effect of oral nutritional support (ONS) in improving the nutritional status of children with cancer.

Methods: A prospective observational study was conducted in a cancer hospital; children between 1–16 years were included. Patient's demographics, baseline nutritional status, mid arm circumference (MAC), height for age, weight for height (W/H), body mass index for age (BMI/A),nutritional delivery and outcomes were recorded. Nutritional assessment was done using paediatric subjective global assessment (PSGNA) and screening tool for childhood cancer (SCAN).ONS was given for all the patients from the first chemotherapy cycle. Data were analyzed using SPSS version 20.0.

Results and Discussion: 59 patients, (39 boys and 23 girls) with mean age of 7.4 ± 3.6 yrs were recruited. PSGNA identified 40.7% patients as malnourished, 88.1% were malnourished in SCAN. The average calorie and protein prescription were 1672 ± 590, 29.7 ± 14.1 respectively. There was a significant improvement in calorie and protein intake between first admission (976 ± 344, 21.8 ± 8.10) and second admission (1158 ± 230, 26 ± 6.26) (p=0.000). Nutritional markers like BMI (16.1 ± 3.64 versus 16.0 ± 3.7), MAC (17.5 ± 3.93 versus 18.5 ± 4.15) were considerably improved and significant improvement in nutritional status noted SCAN (p=0.000) and PSGNA (p=0.001). MAC had a significant negative correlation with length of stay (LOS) (p=0.001). Nutritional status assessed by PSGNA had a negative influence on LOS (p=0.003) and was found to be superior to SCAN.

Conclusion: ONS is an effective and non – invasive solution to malnutrition.ONS can improve the nutritional status of children undergoing chemotherapy if initiated early.

Key words: Nutritional assessment, Nutritional support.

329981024

CLINICAL BENEFITS OF EARLY AND EXTENDED NUTRITIONAL INTERVENTION IN OLDER PATIENTS DISCHARGED FROM ACUTE CARE- A RANDOMIZED CLINICAL TRIAL

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Background. The benefit of early provision of a nutrition intervention and its continuation post-discharge in older hospitalized patients is unclear. This study examined the efficacy of such an intervention on nutritional and clinical outcomes in older patients discharged from acute care.

Methods. In this randomized controlled trial, 148 malnourished patients were randomized to receive either a nutrition intervention or usual care. Intervention included an individualized nutrition care plan plus a two month post-discharge telehealth follow-up whereas control patients received dietetic intervention only upon referral by their clinicians. Nutrition status was determined by the Patient Generated Subjective Global Assessment (PG-SGA) tool and quality of life by using European Quality of Life Questionnaire (EQ-5D 5L). Clinical outcomes included changes in length of hospital stay, complications during hospitalization, Quality of life, mortality and re-admission rate.

Results. Fifty-four males and 94 females (mean age, 81.8 years) were included. Both groups improved their nutritional status from baseline with no significant between group difference noted in PG-SGA scores at three month follow-up 6.9 (95% CI 5.6 to 8.3) vs 5.8 (95% CI 4.8 to 6.9), (P=0.09), in control and intervention groups respectively. Median total length of hospital stay was 6 days shorter in the intervention group (11.4 (IQR 16.6) vs 5.4 (IQR 8.1), (P=0.01). There was no significant difference in complication rate during hospital stay, Quality of life and mortality at 3-months or readmission rate at 1, 3 or 6 months following hospital discharge.

Conclusion. In older malnourished inpatients, an early and extended nutrition intervention showed a trend towards improved nutrition status and significantly reduced length of hospital stay. Provision of such an intervention could be beneficial to improve quality of care and may reap rich monetary benefits to hospitals.

345729331

IMPROVING NUTRITION CANCER CARE OUTCOMES - FIndings FROM A state-wide benchmarking pilot STUDY

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Background

Malnutrition is common in patients receiving cancer treatment and is associated with increased morbidity, mortality and healthcare costs. A 2012 study showed variation in nutrition care for malnourished patients within Victorian Cancer Services. A 'Malnutrition Governance Toolkit' was created in 2014 with the aim of supporting hospital-wide improvements to close the gap in treatment variation. The Toolkit recommended key performance indicators (KPIs) for nutrition care to enable hospital self-assessment and benchmarking to drive up performance. A pilot study to investigate the implementation of nutrition care KPIs across Victorian cancer treatment settings was commenced in 2016.

Methods

Hospitals were recruited and surveyed to establish pilot KPIs and obtain feedback about their involvement. An Excel data collection tool was developed and a 'Nutrition Care Tracker' Dashboard was created to enable visual data display. Decision support tools were developed to support consistency in data collection methods for benchmarking. The pilot study occurred over one week in February 2017 across all pilot sites and cancer treatment settings.

Results

Eleven Victorian Health Services were recruited. The KPIs piloted were completion of weight recording and malnutrition risk screening on admission. On average, KPI results in the in-patient setting were below expected targets. Poorest rates of KPI completion exist in ambulatory care settings. Malnutrition performance monitoring using the 'Nutrition Tracker' and decision support tools were highly regarded by participating sites and health services are engaged to benchmark quarterly. Instant data analysis features were utilised by pilot sites within hospital units and governance committees to communicate gaps in practice.

Conclusion

Malnutrition performance benchmarking at a state-wide level is feasible and achievable when there are dedicated resources, and is needed to drive up current performance. Further work is required to embed malnutrition performance monitoring and benchmarking, with a focus on scoping improved nutrition care processes in ambulatory settings.

345749499

EFFECTS OF SUBSTITUTION OR ADDITION OF CARBOHYDRATE AND FAT TO PROTEIN SUPPLEMENTS ON GASTRIC EMPTYING, GUT HORMONES AND ENERGY INTAKE IN HEALTHY OLDER MEN

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Background: Protein-rich supplements are used widely for the management of malnutrition in the elderly. Information about the effects of these supplements on energy intake and related gastrointestinal mechanisms is limited. The aim of this study was to determine the effects of substitution or addition of carbohydrate and fat to protein compared to a non-caloric control drink on subsequent energy intake, appetite, gastric emptying and gut hormones in healthy older men.

Methods: In randomized, double-blind order, 13 healthy older men (74±6yrs, 82±3kg, 26±2kg/m2) ingested drinks (~450ml) containing: (i) 70g whey-protein ('protein-280kcal'); (ii) 14g protein, 28g carbohydrate, 14g fat ('mixed-280kcal'), (iii) 70g protein, 28g carbohydrate, 14g fat ('mixed-504kcal'), or (iv) an iso-palatable control drink (~0kcal). At regular intervals appetite (visual analog scales), gastric emptying (3D-ultrasonography), blood glucose and plasma insulin, ghrelin, cholecystokinin (CCK) and glucagon-like peptide 1 (GLP-1) concentrations were measured (0-180min). Ad libitum energy intake was quantified from a buffet meal (180-210min).

Results: Appetite and energy intake were not different between study conditions (P>0.05). 50% emptying time (T50) was slower after protein-280kcal and mixed-504kcal than mixed-280kcal and control. Area under the curve (AUC) CCK and GLP-1 were higher and ghrelin lower after protein-280kcal and mixed-504-kcal than mixed-280kcal and control. Early (0-60min) AUC glucose was higher after mixed-280kcal and mixed-504-kcal than protein-280kcal and control. Early AUC insulin was higher after mixed-280kcal and mixed-504-kcal than control, while late (60-180min) AUC was higher after protein-280kcal and mixed-504-kcal than mixed-280kcal and control.

Conclusions: 280-kcal whey-protein and 504-kcal mixed-macronutrient drinks had comparably slower gastric emptying and more pronounced gut hormone responses than a 280-kcal mixed-macronutrient drink and control in healthy older men, while appetite and energy intake were comparable after all drinks.

345777698

CLINICAL OUTCOMES OF PATIENTS WITH TYPE III INTESTINAL FAILURE. A 12 YEAR REVIEW OF A SINGLE CENTRE'S EXPERIENCE

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Background:

Type 3 intestinal failure (IF) requiring home parenteral nutrition (HPN) is a rare disease, the small patient numbers has flow-on effects in that it translates into small patient numbers per centre thereby limiting the experience of each centre. The relationship between caseload and patient outcomes is well-documented and is likely to apply to IF as IF is a complex condition requiring multi-disciplinary input. The purpose of this study was to review the experience of Royal Prince Alfred Hospital with HPN patients over the past 12 years.

Methods:

A retrospective review of all HPN patients from 2005-2017 was undertaken. Medical records were reviewed for patient demographics and relevant clinical data including mortality, complications and readmissions. Associations were explored using chi-square if categorical and t-test if continuous.

Results:

There were 40 HPN patients (25 females) with a mean age of 53 (+/-14 years) at time of commencement. The average duration on HPN at the time of review was 2.5 years (+/- 2.8 years). Most patients (31, 78%) received HPN 7 days per week. Indications for HPN were: short bowel syndrome (20) followed by enteric fistula (10), mechanical obstruction (6) and intestinal dysmotility (4). All 6 patients with obstruction had an advanced intra-abdominal malignancy. 5-year overall survival was 41%. Median survival after commencing HPN was 38.4 months. Cause of death were mostly related to the underlying disease or HPN (48% and 26% respectively). The most common HPN related complication is line sepsis (24, 60%), which is also the most common cause of unplanned readmissions. Patients with short bowel or fistula were more likely to develop line sepsis (73% vs 20%, p=0.003). Line sepsis is also the most common complication complicating any readmission (40 of 152 readmissions, 26.5%) regardless of indication for readmission.

Conclusions:

Mortality amongst HPN patients is high. Management of the underlying disease and line sepsis are main priorities in these patients.

339010320

HOME ENTERAL NUTRITION SERVICES AT PUBLIC HOSPITALS IN NEW SOUTH WALES, AUSTRALIA.

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Background: There is currently limited information regarding the number of patients requiring home enteral nutrition (HEN) in NSW. The lack of a national HEN patient registry and overarching national framework for HEN may lead to inconsistencies in service delivery and unknown numbers of patients requiring HEN. The aim of this study is to report on patient numbers and demographics of the HEN population in NSW, and evaluate the implementation of HEN services in public hospitals across NSW.

Methods: A cross-sectional study was conducted using two online questionnaires, completed by the dietitian mainly overseeing HEN at each participating hospital. Data was analysed using descriptive statistics, t-tests and Fisher's exact tests.
Results: Out of the 95 public hospitals identified as having a HEN service in NSW, 59 hospitals participated (response rate of 62.1%). Participating hospitals reported a total of approximately 7600 HEN patients, 81% requiring oral nutrition support and 19% requiring tube feeding. Only 20.3% of hospitals reported having a dietitian allocated to HEN, and 10.2% of hospitals reported a multi-disciplinary team available to manage HEN patients. Post-discharge follow up, as recommended for tube fed and oral patients, was achieved by 19% and 25% of hospitals respectively. An average of 54% (range 14-98%) of recommendations on the HEN Implementation Checklist were currently in place. Hospitals with a HEN dietitian scored a higher rate of compliance with the Implementation Checklist compared with hospitals without a HEN dietitian (79.6 ± 15.6 vs 47.6 ± 2.4; P<0.001).
Conclusion: HEN services at public hospitals across NSW are inconsistent, demonstrating inequities in service provision. Best practice guidelines are not firmly adhered to, and we found that a lack of funding and resource limitations were identified as the major barriers to addressing gaps in service provision.

345692665

PLATINUM-INDUCED FATTY ACIDS ARE PRESENT IN CANCER PATIENTS BUT MAY NOT BE ASSOCIATED WITH TREATMENT RESPONSE

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Background: Preclinical studies suggest that hexadeca-4,7,10,13-tetraenoic [16:4(n-3)], a fatty acid in fish oil, is produced in response to platinum-based chemotherapy and may induce chemoresistance. This is yet to be confirmed in human cancer patients. We aimed to investigate plasma 16:4(n-3) in non-small cell lung cancer (NSCLC) patients undergoing platinum-based chemotherapy with or without fish oil supplements and to explore potential relationships between 16:4(n-3) and response to treatment.

Methods: Secondary analysis of stored plasma from a RCT of NSCLC patients with fish oil (n=11) supplementation versus standard care (n=9). Plasma was from pre-chemotherapy with follow-up collected at a following chemotherapy cycle. We developed and validated a laboratory methodology to measure plasma 16:4(n-3) in NSCLC patients.

Results: 16:4 (n-3) was present in patients prior to the start of chemotherapy [4.6-93.1nM free 16:4(n-3) and 37.2-567.5nM total 16:4(n-3)]. A Mann Whitney U test indicated that the median increase in total 16:4(n-3) was greater for the fish oil group (median increase = 43.9nM) than standard care (median increase = 7.8nM), U = 18, p=0.016, but was no different in free 16:4(n-3) between groups (p>0.05). There was no significant difference between median total 16:4(n-3) of those who responded to treatment [78.8nM (36.1-663.9)] versus those who didn't respond [109.5nM (64.1-476.4)], p>0.05. Similarly, there was no significant difference between median free 16:4(n-3) of those who responded to treatment [21.9nM (3.9-74.7)] versus those who didn't respond [22.4nM (2.4-160.1)], p>0.05.

Conclusions:

The current data show that 16:4(n-3) is detectable in NSCLC patients in free and total plasma fractions, even before the start of platinum-based chemotherapies, and suggests a relationship between fish oil supplementation during chemotherapy and plasma 16:4(n-3). There was no significant difference in 16:4(n-3) between those who did versus did not respond to chemotherapy. This is contrary to the findings from pre-clinical studies and suggest that the use of fish oil supplements are safe in patients on platinum-based chemotherapy.

345693405

DEPRESSED MOOD AND COGNITIVE FUNCTIONS IN PATIENTS WITH CANCER ARE ASSOCIATED WITH ALTERATIONS IN TRYPTOPHAN METABOLISM

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Background:

Depression and cognitive deficits have been observed in patients with cancer and is thought to be related to the degradation of tryptophan (TRP; precursor of serotonin). The aim of this study was to investigate the association between whole body TRP metabolism and neuropsychological functions in advanced cancer.

Methods:

In 16 patients with solid tumours (C) and 16 age and gender matched healthy controls, the rates of appearance (Ra) and clearance of TRP were assessed by primed continuous infusion of L-[indole-2H5]TRP. Plasma amino acid profile was analyzed to measure plasma TRP level, and ratio plasma TRP to Large neutral amino acids (LNAA = sum of tyrosine, phenylalanine, isoleucine, leucine and valine) calculated as marker of TRP uptake into the brain. Mood was assessed by the Hospital Anxiety and Depression Score, and cognition by a test battery consisting of the Auditory Verbal Learning, Verbal Fluency, Trail Making, and Stroop tests. Plasma amino acid levels and isotope enrichments were measured by LC-MS/MS. Statistics were done by unpaired t-tests, linear regression analyses and Pearson's correlation.

Results:

Depression scores were higher in C (5.0 vs 2.6, $P<0.05$), but anxiety and cognitive outcomes were comparable between the groups. In C, depression categories were negatively associated with plasma TRP (B=-8.3 µmol/L, $P<0.01$) and positively with TRP clearance (B=0.09 L/min, $P<0.05$). Additionally, we found that only in C, TRP Ra was associated with word fluency ($r=0.70$, $P<0.01$), processing speed (TMT completion time; $r<-0.54$, $P<0.05$), and verbal learning capacity and memory (immediate and delayed recall, learning rate and recognition; $r\geq0.63$, $P\leq0.01$). No relationship was found between plasma TRP/LNAA ratio and mood or cognition.

Conclusions:

These findings suggest that an imbalance in TRP metabolism plays a role in the

depressive symptoms in patients with cancer and may increase their risk of developing cognitive deficits.

345720269

AN AUDIT OF THE POSTOPERATIVE NUTRITIONAL PRACTICES FOLLOWING MAJOR ABDOMINAL SURGERY

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Background: Early oral feeding following major gastrointestinal (GI) surgery is safe and may improve outcomes, including length of stay (LOS) and post-operative complications1. Inconsistencies in post-operative diet progression have been observed at this Victorian tertiary hospital, despite awareness of best practice guidelines. The aim of this audit was to assess post-operative diet progression practices and investigate the associations with hospital LOS and post-operative complications.

Methods: Prospective observational cohort study of patients undergoing major upper and lower GI surgery was conducted, over a two month period, at a tertiary hospital in Melbourne. Data collection included demographics, daily diet codes, nutritional status (subjective global assessment), weight change, LOS and post-operative ileus.

Results: Of the 36 patients included, 58% (n=21) were male, the mean (SD) age was 56 (16) years, the median (interquartile range [IQR]) LOS was 11 [7-17] days and on admission 21% (n=8) were malnourished. The median [IQR] days to commencing any solid diet was 5 [3-7] days. There was a strong association between days on a restricted diet (Nil by Mouth, Clear Fluids, Fluids Only) and LOS ($r=0.54$, $p=0.001$). There was a significant difference in the days on a restricted diet in those who developed an ileus (mean difference [Md]=6, n=10) and those who didn't ([Md]=3, n=26), ($U=44.5$, $z=-3.05$, $p=0.002$). In a subset of patients (n=21), who were weighed at discharge, 36% had significant weight loss (>5%) over the admission.

Conclusions: Significant delays in commencing solids were observed and the number of days on a restricted diet was associated with longer LOS. Patients who developed an ileus were on restricted diets for longer. Earlier introduction of solids, in line with evidence based guidelines may improve patient outcomes1.

References: 1.Weimann A et al.ESPEN guideline:Clinical Nutrition in Surgery. Clinical Nutrition 2017;36(3):623-650.

345715050

MULTIDISCIPLINARY EVIDENCE-BASED INTESTINAL REHABILITATION: CASE REVIEW OF OPTIMAL OUTCOMES DESPITE POOR PROGNOSTIC FACTORS.

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Background:

Short bowel syndrome (SBS) is the most common cause of intestinal failure in children. Intestinal rehabilitation (IR) is a multimodal patient care model which encourages compensatory processes of adaptation in residual bowel strongly influencing long-term outcomes. We report the case of a 7-year-old boy with very short SBS who was managed using an evidence-based multidisciplinary IR model through a challenging clinical course.

Methods:

The patient was born at 35+2 weeks gestation with antenatally diagnosed gastroschisis. He had surgical closure on Day 1 of life. A laparotomy was performed on Day 12 to resect atretic small bowel, leaving 30cm dilated jejunum, jejuno-colic anastomosis (no ileocaecal valve) and microcolon. Serial Transverse Enteroplasty was performed at 2-years-old.

The IR team involved medical, surgical, allied health and nursing expertise in a family-centred approach. Management strategies included: early enteral nutrition (breast milk), optimisation of Parenteral Nutrition (PN), anti-motility agents, acid suppression and strict Central Venous Access Device (CVAD) management. Complications included multiple septic episodes, recurrent small intestinal bacterial overgrowth and mild liver fibrosis.

Results:

The patient was successfully weaned from PN at 3-years-old. He is currently 7-years-old, tracking along 50th percentile for weight and 75th percentile for height. He enjoys a full oral diet with no oral aversion and a good quality of life with no developmental concerns. He receives daily anti-motility agents, intermittent intramuscular Vitamin B12 and has no other micronutrient deficiencies. Periodically, he requires supplemental enteral nutrition.

Conclusions:

We describe successful intestinal adaptation and enteral autonomy in a child with very short SBS despite unfavourable intestinal prognostic factors and challenging clinical circumstances. This case challenges the classically reported predictors of intestinal autonomy and highlights the key role of evidence-based multidisciplinary IR coordinated care in children with SBS.

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