

# PROGRAMME E-BOOK



## THE 24<sup>th</sup> ANNUAL CONGRESS OF THE PARENTERAL AND ENTERAL NUTRITION SOCIETY OF ASIA

IN CONJUNCTION WITH  
10<sup>th</sup> BIENNIAL CONGRESS OF PENSMA

*Restoring and Redefining Clinical Nutrition*

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**RESTORING & REDEFINING CLINICAL NUTRITION**

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**RESTORING & REDEFINING CLINICAL NUTRITION**

**PENSA Congress Member**



**CSPEN**  
 Chinese Society for  
 Parenteral and Enteral  
 Nutrition



**HKSPEN**  
 The Hong Kong Society of  
 Parenteral and Enteral  
 Nutrition



**ISPEN**  
 The Indian Society for  
 Parenteral and Enteral  
 Nutrition



**INASPEN**  
 Indonesian Society for  
 Parenteral and Enteral  
 Nutrition



**IrSPEN**  
 Iranian Nutrition Society



**JSPEN**  
 Japanese Society for  
 Parenteral and Enteral  
 Nutrition Therapy



**KEPAN**  
 Klinik Enteral Parenteral  
 Nutrisyon Derneği



**KSPEN**  
 Korean Society for Parenteral  
 and Enteral Nutrition



**PENSA**  
 The Parenteral and Enteral  
 Nutrition Society of Malaysia



**PhilSPEN**  
 Philippines Society for  
 Parenteral and Enteral  
 Nutrition



**SingSPEN**  
 Society for Parenteral and  
 Enteral Nutrition (Singapore)



**SLMNA**  
 Sri Lanka Medical Nutrition  
 Association



**SPENT**  
 Society for Parenteral and Enteral  
 Nutrition of Thailand



**TSPEN**  
 Taiwan Society for Parenteral and  
 Enteral Nutrition



**VietSPEN**  
 Vietnamese Society for Parenteral and  
 Enteral Nutrition

## RESTORING & REDEFINING CLINICAL NUTRITION

# Welcome Message from President of 24<sup>th</sup> PENSA Congress 2024



**Mohammad Shukri Jahit**  
PENSMA President  
24<sup>th</sup> PENSA CONGRESS President

Selamat Datang!

Greetings from Kuala Lumpur, Malaysia

We are delighted that the Parenteral and Enteral Nutrition Society of Malaysia (PENSMA) is the host the 24th Congress of the Parenteral and Enteral Nutrition Society of Asia (PENSA 2024) from 7th to 10th November 2024 at Shangri-la Hotel Kuala Lumpur, Malaysia.

The theme of PENSA 2024, "**Restoring & Redefining Clinical Nutrition**", comes at the right time when we look back at our achievements thus far while enhancing overall patient management delivery. We strongly believe that working as a team would make us stronger; hence restoring a robust clinical nutrition care plan would ensure confidence and achievement to redefine and refine our approach in the most complex cases with clinical nutrition.

We are confident that this congress brings along the best and most esteemed speakers whom we may learn from and interact with within plenaries and symposiums specifically planned to fulfil your appetite repetitive at its best. We hope this congress will also provide us with a wider platform for future networking, collaboration, and clinical research between clinicians and allied health professionals across Asia.

We hope everyone is having enriching and productive experience throughout this 3-days congress.

**RESTORING & REDEFINING CLINICAL NUTRITION**

**Organising Committees**



Mohammad Shukri Jahit  
*President*



Luqman Mazlan  
*Vice President*



Tan Ju Nee  
*Publication*



Nurliyana Awalludin  
*Publication*



Norshikin Bt  
 Rekamarudin  
*Publication*



Mazuin Kamarul Zaman  
*Publication*



Lee V Joon  
*Business*



Khong Khei Choong  
*Business*



Tee Sze Chee  
*Committee Member*



Hans Alexander  
*Committee Member*



Molly Kong  
*Committee Member*



Melvin Raj  
*Committee Member*

**Scientific Committees**



Luqman Mazlan  
*Scientific Chair*



Hans Alexander



Norshikin Bt  
 Rekamarudin



Mazuin Kamarul Zaman



Tee Sze Chee



Nurliyana Awalludin

**RESTORING & REDEFINING CLINICAL NUTRITION**

**Invited Faculty**



Abdolreza Norouzy  
Iran



Ajay Jain  
United States



Benedict Dharmaraj  
Malaysia



Chalobol Chalernsri  
Thailand



Chong Chin Weun  
Malaysia



Charles Lew Chin Han  
Singapore



Daruneewan  
Warodomwicht  
Thailand



Divina Cristy Redondo-  
Samin  
Philippines



Dong Woo Shin  
South Korea



Doris Ng Hui Lan  
Singapore



Durga Neelesh Vaidya  
India



Eliza Mei Francisco  
Philippines



Gil Hardy  
New Zealand



Grace Paguia  
Philippines



Han-Shui Hsu  
Taiwan



Harbans Kaur Dhillon  
Malaysia



Hazel Yeong  
Singapore



How Kwang Yeong  
Singapore



Jakyung Min  
South Korea



Jaw Yuan Wang  
Taiwan



Jesus Fernando Inciong  
Philippines



Ji-Young Sul  
South Korea



Jonny  
Indonesia



Josef Hartono  
Indonesia



Junko Ueshima  
Japan



Katijahbe Mohd Ali  
Malaysia



Kaweesak  
Chittawatanarat  
Thailand



Lee Zheng Yii  
Malaysia



Maria Christina Kristin S.  
Reyes  
Philippines



Remy Meier  
Switzerland



Melissa Sy  
Philippines



Mohd Nahar Azmi  
Mohamed  
Malaysia



Nalinda Herath  
Sri Lanka



Naoharu Mori  
Japan



Naoki Hiki  
Japan



Ng Kar Foo  
Malaysia

**RESTORING & REDEFINING CLINICAL NUTRITION**



Nur Sakinah Ibrahim  
*Malaysia*



Nurliyana Awalludin  
*Malaysia*



Olive Quizon  
*Philippines*



Orawan Pichitthaipitak  
*Thailand*



Osman Abbasoglu  
*Türkiye*



PingPing Jia  
*China*



Radha reddy Chada  
*India*



Reynaldo Sinamban  
*Philippines*



Richard Calingasan  
*Philippines*



Rohana Abdul Ghani  
*Malaysia*



Sajitha Mallawaarachchi  
*Sri Lanka*



Sanjith Saseedharan  
*India*



Soranit Sittharm  
*Thailand*



Stanislaw Klek  
*Poland*



Thanit Vinitchagoon  
*Thailand*



Thuy Ha Phuong  
*Vietnam*



Todd Rice  
*United States*



Tsai Hsiang Lin  
*Taiwan*



Tuong Tran Thi Anh  
*Vietnam*



Wendy Ma  
*Hong Kong, China*



Winai Ungpinitpong  
*Thailand*

## RESTORING & REDEFINING CLINICAL NUTRITION

# Programme At A Glance

	Day 1 8th Nov 2024	Day 2 9th Nov 2024	Day 3 10th Nov 2024			
08:00 - 08:30	Registration	Registration	Registration			
08:30 - 09:00		Plenary II	Plenary IV			
09:00 - 09:30	Chomchark Chantrasakul Honorary Lecture	Symposium				
09:30 - 10:00		6	7	8	13	14
10:00 - 10:30	Opening Ceremony					
10:30 - 11:00	Tea Break	Tea Symposium by Baxter	Tea Break			
11:00 - 11:30	Symposium	Tea Break & Poster Presentation I	Tea Break & Poster Presentation II			
11:30 - 12:00	1	Symposium	Symposium			
12:00 - 12:30	2	9	10	15	16	
12:30 - 13:00	Lunch Symposium by Fresenius Kabi					
13:00 - 13:30		Lunch Symposium by Otsuka	Closing & Prize Presentation			
13:30 - 14:00	Lunch Break & Booth Visit		Lunch			
14:00 - 14:30		Lunch Break & Booth Visit				
14:30 - 15:00	Plenary I	Plenary III				
15:30 - 16:00	Symposium	Symposium	Free Paper III			
16:00 - 16:30	3	11	12			
16:30 - 17:00	4	Afternoon Tea Break				
16:30 - 17:00	5					
16:30 - 17:00	Afternoon Tea Break					
17:00 - 17:30	PENSMA AGM	PENSA Executive Meeting				
17:30 - 18:30						
20:00 - 22:00		Faculty Dinner				



## RESTORING & REDEFINING CLINICAL NUTRITION

# Scientific Programme

## Day 1 (8th November 2024)

### 📍 Sabah Room

0900 - 1000 **Chomchark Chantrasakul Honorary Lecture**  
*Chairperson: Mohammad Shukri Jahit, Malaysia*  
*Harbans Kaur Dhillon, Malaysia*

1000 - 1030 **Opening Ceremony**

1100 - 1230 **Symposium 1 - Acute Care**

*Chairpersons:*  
*Nalinda Herath, Sri Lanka*  
*Vineya Rai, Malaysia*

- **Goal-Directed Nutrition Therapy in Critical Illness**  
*Sanjith Saseedharan, India*
- **Continuous Renal Replacement Therapy: How to Close the Nutritional Gap?**  
*Hazel Yeong, Singapore*
- **Addressing Malnutrition in the ICU: Why More Isn't Better**  
*Charles Lew Chin Han, Singapore*
- **The Impact of Treatment and Nutrition on Glycemic Variability in Critically Ill Patients**  
*Olive Quizon, Philippines*

1230 - 1320 **Lunch Symposium by Fresenius Kabi**  
*Chairperson: Mohammad Shukri Jahit, Malaysia*

**PN Therapy: The RIGHT SOLUTIONS and Approaches**  
*Stanislaw Klek, Poland*

1430 - 1510 **Plenary I**  
*Chairperson: Mohammad Shukri Jahit, Malaysia*

**Sarcopenia and Physical Frailty The Current Diagnostic Challenges**  
*Remy Meier, Switzerland*

1510 - 1640 **Symposium 3 - ERAS I**

*Chairpersons:*  
*Luqman Mazlan, Malaysia*  
*Osman Abbasoglu, Turkiye*

- **CPET: The Value of Multidisciplinary Interpretation of Fitness**  
*Mohd Nahar Azmi Mohammed, Malaysia*
- **Pre-operative Carbo Loading: A Practice With No Significant Outcome?**  
*Winai Ungpinitpong, Thailand*
- **Improving Cardiorespiratory Function Before Major Abdominal Surgery**  
*Katijjahbe Mohd Ali, Malaysia*
- **Role of Nutrition In Post-Operative Recovery Process**  
*Jesus Fernando Inciong, Philippines*

## RESTORING & REDEFINING CLINICAL NUTRITION

### Day 1 (8th November 2024)

#### 📍 Sarawak Room

##### 1100 - 1230 **Symposium 2 - Nutrition Therapy Team (NTT)**

*Chairpersons:*

*Han-Shui Hsu, Taiwan*

*Nurliyana Awalludin, Malaysia*

- **NTT Development & Progress in Taiwan**  
*Jaw-Yuan Wang, Taiwan*
- **NTT Development & Progress in the Philippines**  
*Divina Cristy Redondo-Samin, Philippines*
- **NTT Development & Progress in Thailand**  
*Winai Ungpinitpong, Thailand*
- **NTT Development & Progress in Indonesia**  
*Josef Hartono, Indonesia*

##### 1510 - 1640 **Symposium 4 - Home Parenteral Nutrition (PN)**

*Chairpersons:*

*Hazel Yeong, Singapore*

*Hans Alexander, Malaysia*

- **Best Practice in Singapore**  
*Doris Ng Hui Lan, Singapore*
- **Best Practice in Thailand**  
*Daruneewan Warodomwicht, Thailand*
- **Home Parenteral Nutrition: Experience From a Tertiary Medical Center in Taiwan**  
*Han-Shui Hsu, Taiwan*
- **Best Practice in Korea**  
*Jakyung Min, Korea*

## RESTORING & REDEFINING CLINICAL NUTRITION

### Day 1 (8th November 2024)

#### 📍 Melaka Room

##### 1100 - 1230 **Free Paper Presentation I**

- **[#23] Tackling Pew-Associated Muscle Wasting In Patients on Haemodialysis: Going Beyond The Basics With Intradialytic Parenteral Nutrition**  
*Birinder Kaur Sadu Singh, Malaysia*
- **[#24] The Effect of Personalize Dietary Intervention on Hyperphosphatemia in Patients With Hemodialysis**  
*Yu Ru Hu, Taiwan*
- **[#20] Navigating the Impact of Personalized Parenteral Nutrition on Critical Ill Patients: Systematic Review and Meta-Analysis**  
*Othman Mohammed Gatar, Saudi Arabia*
- **[#27] Factors Affecting to Energy Expenditure Measurement by Indirect Calorimetry Among Critically Ill Patients With Acute Kidney Injury**  
*Wittawat Hongmeng, Thailand*
- **[#16] Venous-To-Arterial Carbon Dioxide Tension Difference Measurement as a Useful Predictor of Patient Prognosis After Major Surgery**  
*Gyeo Ra Lee, South Korea*
- **[#93] Serial Albumin Measurement as a Predictor of 30-Day Mortality in ICU Patients With Sepsis**  
*Anak Agung Sagung Mirah Prabandari, Indonesia*
- **[#83] Effect of Graduated Exercise Based Prehabilitation Versus Standard Care on Psychological Recovery and Health-Related Quality of Life in Patients Awaiting for Cardiothoracic Surgery- A Pilot Rct**  
*Katijjahbe Mohd Ali, Malaysia*
- **[#105] Analysis of the Impact of Nutritional Status and Adequacy of Enteral Nutrition Support in the Clinical Outcomes of Critically Ill Patients**  
*Daphnee Lovesley India*
- **[#106] Feasibility of Improving Clinical Outcomes of Critically Ill Obese Indian Patients by Using an Individualized Hypocaloric, High Protein Enteral Nutrition Protocol - A Pilot Study.**  
*Ramya Subburaj India*

##### 1510 - 1640 **Symposium 5 - Leading the Nurses in Safe Nutrition Care**

Chairpersons:

*Josef Hartono, Indonesia*

*Norashikin Bt Rekamarudin, Malaysia*

- **Nurses Role in Prehabilitation Before Major Surgery**  
*Richard Calingasan, Philippines*
- **Care of the Catheter: The Never Ending War**  
*Orawan Pichitchaipitak, Thailand*
- **Handling TPN: From the Bench to the Bed**  
*Jonny, Indonesia*
- **Ensuring Safe Tube Feeding: Tips and Tricks**  
*Durga Neelesh Vaidya, India*

##### 1700 - 1830 **PENSA Annual General Meeting**

## RESTORING & REDEFINING CLINICAL NUTRITION

### Day 2 (9th November 2024)

#### 📍 Sabah Room

0820 - 0900 **Plenary II:**

*Chairperson: Luqman Mazlan, Malaysia*

**Muscle Preservation to Improve Clinical Outcomes**

*Stanislaw Klek, Poland*

0900 - 1030 **Symposium 6 - HOME PN II**

*Chairpersons:*

*Mohammad Shukri Jahit, Malaysia*

*Sanjith Saseedharan, India*

- **Developing Home PN Programme- The European Experience**  
*Stanislaw Klek, Poland*
- **Nutritional Management of Intestinal Failure With Chyme Reinfusion Therapy**  
*Gil Hardy, New Zealand*
- **Role of GLP-2 in Short Bowel Syndrome**  
*Doris Ng Hui Lan, Singapore*
- **Requirements for Micronutrients Among Home PN Patients**  
*Maria Christina Kristin S. Reyes, Philippines*

1030 - 1100 Tea Symposium by **Baxter**

1100 - 1130 **Tea Break & Poster Presentation I**

- **Integrating Nutritional Support in Palliative Care for Male Breast Cancer: A Case Report**  
*Michelle Lim, Malaysia*
- **Personalized Home Medical Nutrition Therapy in Cancer Cachexia Patient With Laryngeal Cancer: A Case Report**  
*Kartika Soka Rahmita, Indonesia*
- **Comparative Evaluation of Diagnostic Accuracy and Malnutrition Prevalence: Glim Criteria vs. Subjective Global Assessment**  
*Bhakti Rahul Samant, India*
- **Effectiveness of Assessing Adductor Pollicis Muscle as Indicator for Sarcopenia in Critically Ill Emergency Patients**  
*SeoRin Doo, South Korea*
- **Current Status and Challenges of Enteral Nutrition During Disasters in Japan**  
*Keiko Sekido, Japan*
- **Managing Home Parenteral Nutrition During Pregnancy in Patient With Short Bowel Syndrome: A Successful Experience in Sabah, Malaysia**  
*Fong Pui Wun Fiona, Malaysia*

📍 **Poster Area**

## RESTORING & REDEFINING CLINICAL NUTRITION

### 1130 - 1300 **Symposium 9 - Quality in Nutrition Care**

*Chairpersons:*

*Ji-Young Sul, South Korea*

*Mazuin Kamarul Zaman, Malaysia*

- **Evaluation and Support for Re-feeding Syndrome**  
*Charles Lew Chin Han, Singapore*
- **Implementation of Nutritional Care Flow in a University Hospital Using GLIM Criteria**  
*Naoharu Mori, Japan*
- **Accreditation of Nutrition Support Teams**  
*Osman Abbasoglu, Türkiye*
- **Weight Management and Eating Disorders: What Clinicians Should Know**  
*Thanit Vinitchagoon, Thailand*

### 1300 - 1350 **Lunch Symposium by Otsuka**

*Chairperson: Daruneewan Warodomwichit, Thailand*

**MNT: Selecting the Optimal Formula in Patient Conditions**

- **Optimizing Patient Outcomes: Total Nutrition Management in Parenteral and Enteral Therapy**  
*Haerani Rasyid, Indonesia*
- **Role of Symbiotic Supplementation, Protein Adequacy and Enteral Feeding Tolerance in Critically Ill Patients**  
*Radha Reddy Chada, India*
- **Overall Benefits of BCAA-Enriched EN Formula Supplementation in Chronic Liver Disease**  
*Narison Lakananurak, Thailand*

### 1420 - 1500 **Plenary III**

*Chairperson: Hans Alexander, Malaysia*

**Enteral Feeding Intolerance in Hospitalized Patients: Management Through The Phases of Critical Illness**

*Todd Rice, United States*

### 1500 - 1630 **Symposium 11 - Acute Care II**

*Chairpersons:*

*Charles Lew Chin Han, Singapore*

*Tan Ju Nee, Malaysia*

- **Protein in Critically Ill Patients: Should the EFFORT Stop?**  
*Lee Zheng Yii, Malaysia*
- **Role of Micronutrient Substrates in Clinical Recovery in Critically Ill Patients**  
*Abdolreza Norouzy, Iran*
- **The Role of Probiotics in Critically Ill Patients**  
*Lee Zheng Yii, Malaysia*
- **Enteral Nutrition - Bolus vs Continuous**  
*Nalinda Herath, Sri Lanka*

## RESTORING & REDEFINING CLINICAL NUTRITION

### Day 2 (9th November 2024)

#### 📍 Sarawak Room

##### 0900 - 1030 **Symposium 7 - Peri Operative Nutrition**

*Chairpersons:*

*Hans Alexander, Malaysia*

*Luqman Mazlan, Malaysia*

- **Supplementary PN in Peri-Operative Period**  
*Osman Abbasoglu, Türkiye*
- **Immunonutrition: Does It Really Improve Post-Operative Outcomes?**  
*Tuong Tran Thi Anh, Vietnam*
- **Controlling Muscle Mass Perioperatively Using PPN**  
*Naoki Hiki, Japan*
- **Practical Peri-Operative Micronutrients: Yay or Nay**  
*Ji-Young Sul, Korea*

##### 1130 - 1300 **Symposium 10 - Nutrition Support in Palliative Care**

*Chairpersons:*

*Abdolreza Norouzy, Iran*

*Chai Win Lin, Malaysia*

- **Nutrition Support in Palliative Care: General Perspective**  
*Eliza Mei Francisco, Philippines*
- **Home PN in Palliative Patients**  
*Kaweesak Chittawatanarat, Thailand*
- **Enhancing Economic Efficiency Through the Implementation of Home Parenteral Nutrition SOP With a Novel Training Module for Cancer or Chronic Intestinal Failure Patients: Taiwan Institution Experience-Sharing**  
*Tsai Hsiang Lin, Taiwan*
- **Home PN in Palliative Patients With Palliative Chemotherapy**  
*Maria Christina Kristin S. Reyes, Philippines*

##### 1500 - 1630 **Symposium 12 - Local Guidelines in Nutrition Care**

*Chairperson:*

*Mohammad Shukri Jahit, Malaysia*

*Hashimah Abdul Rahman, Malaysia*

- **Total Gastrectomy Preserving Appetite**  
*Naoki Hiki, Japan*
- **Mind the Gap: Balanced Act Between Nutritional Guideline and Local Healthcare System**  
*Dong Woo Shin, South Korea*
- **Nutrition Care Recommendations Post Discharge - Learnings from Singapore**  
*Doris Ng Hui Lan, Singapore*
- **Muscle Mass Assessment: Clinical Practice & Its Impact**  
*Sanjith Saseedharan, India*

## RESTORING & REDEFINING CLINICAL NUTRITION

### Day 2 (9th November 2024)

#### 📍 Melaka Room

##### 0900 - 1030 **Symposium 8 – Nutrition Support in Oncology**

Chairpersons:

*Jonny, Indonesia*

*Tee Sze Chee, Malaysia*

- **Nutrition Therapy in Cancer Cachexia: The Uphill Task**  
*Remy Meier, Switzerland*
- **Early Diagnosis and Nutritional Management of Cancer Cachexia in Asian Population**  
*Naoharu Mori, Japan*
- **Prehabilitation in GI Oncology Surgery: A Practical Solution**  
*Thuy Ha Phuong, Vietnam*
- **When the Gut Fails: Parenteral Nutrition During Chemotherapy**  
*Sajitha Mallawaarachchi, Sri Lanka*

##### 1130 - 1300 **Free Paper Presentation II**

- **[#95] Association of Muscle Mass and Muscle Strength With the Physical Activity and Dietary Intake of Healthy Filipino Adults: A Cross-Sectional Study**  
*Dawn Fatima S. Cuevas, Philippines*
- **[#7] Problems for Nutritional Screening and Assessment Associated With Spreading Glim Criteria in Japanese Acute Care Hospitals: Nationwide Web-Based Questionnaire Survey**  
*Yuri Horikoshi, Japan*
- **[#37] A Comparative Analysis of Nutritional Assessment Using Global Leadership Initiative on Malnutrition Versus Subjective Global Assessment in Maintenance of Hemodialysis Patients**  
*Aiswarya Raj PR, India*
- **[#70] Utilising Digitalization for Timely Standardised Nutritional Screening and Assessment in Care Process of Ipd Patients in Hospital Set Up**  
*Shafali Mehra, India*
- **[#94] Budget Friendly Fat Scale – Comparing the Reliability of Different Commercially Available Bioimpedance Analysis Scales**  
*Alexander Lim Zhang You, Malaysia*
- **[#108] Evaluating the Efficacy of Oral Nutritional Supplementation on Clinical Outcomes Using Hand Grip Strength Compared to Subjective Assessments**  
*Daphnee Lovesley, India*
- **[#104] Association Between Early Enteral Nutrition (Within 12 Hours) and Clinical Outcomes in Critically Ill Obese Indian Patients: An Observational Study**  
*Ramya Subburaj, India*
- **[#77] Utility of Bioelectrical Impedance Analysis (Bia) in Assessment of Skeletal Muscle Mass in Patients Undergoing Metabolic Bariatric Surgery**  
*Solomon Raj A/L Vasudayan, Malaysia*
- **[#49] The Effectiveness of Changing the Texture of Food for Promoting Body Weight of Low BMI Dysphagia Elder**  
*Shu Ting Chang, Taiwan*

## RESTORING & REDEFINING CLINICAL NUTRITION

### 1500 - 1630 Free Paper Presentation III

- **[#82] Effect of Exercise Prehabilitation on Functional Performance in Patients Awaiting for Cardiothoracic Surgery. A Feasibility Pilot Rct**  
*Katijjahbe Mohd Ali, Malaysia*
- **[#109] Assessment of Sarcopenia and Malnutrition in Hospitalized Non-critically Ill Patients Using Multivariate Assessment Tools: A Multicentric Study.**  
*Daphnee Lovesley, India*
- **[#65] A Comparitive Study on Pre-operative Carbohydrate Loading in Orthopedic Patients -Eras Protocol (2017-2024)**  
*Ananya Konar, India*
- **[#6] How Effective Is Surgical Gastrojejunostomy for Malignant Gastric Outlet Obstruction? - With Regard to Nutritional Evaluation.**  
*Akinori Sekioka, Japan*
- **[#8] Immuno-Nutrition During Adjuvant Hypofractionation Radiotherapy in Breast Cancer**  
*Imjai Chitapanarux, Thailand*
- **[#15] Impact of Sarcopenia on Post-operative Outcomes Following Pancreaticoduodenectomy**  
*Radha Reddy Chada, India*
- **[#17] Updated Meta-Analysis Comparing Early Enteral Nutrition With Early Parenteral Nutrition in Critically Ill Patients**  
*Jae Gil Lee, Korea South Korea*
- **[#78] Triad of Rehabilitation, Nutrition Support, and Oral Management Improves Activities of Daily Living and Muscle Health in Hospitalized Patients After Stroke**  
*Yoshihiro YOSHIMURA, Japan*
- **[#44] Tailoring Parenteral Nutrition for Adults at Risk of Refeeding Syndrome: A Strategic Approach to Profile PN Content With Stability Evidence**  
*Nur Aina binti Abu Hassan Shaari, Malaysia*

### 1700 - 1745 PENSA Executive Meeting



## RESTORING & REDEFINING CLINICAL NUTRITION

### Day 3 (10th November 2024)

#### 📍 Sabah Room

0820 - 0900 **Plenary IV**

*Chairperson: Hans Alexander, Malaysia*

**Impact of Malnutrition in the Pediatric Patient**

*Ajay Jain, United States*

0900 - 1030 **Symposium 13 - Nutrition Support in Bariatric Surgery**

*Chairpersons:*

*How Kwang Yeong, Singapore*

*Lau Peng Choong, Malaysia*

- **Elephant in the Room: Addressing the Malnutrition**  
*Reynaldo Sinamban, Philippines*
- **Tackling the Complex Behavioural Modification in the Era of Novel Weight Loss Medication**  
*Rohana Abd Ghani, Malaysia*
- **Long-Term Micronutrient Deficiency: Supplementation vs Natural Dietary Intake**  
*Nurliyana Awalludin, Malaysia*
- **Best Practice in Post-operative Dietary Adaptation**  
*Ng Kar Foo, Malaysia*

1100 - 1130 **Tea Break & Poster Presentation II**

- **Case Report and Literature Review: Ketogenic Diet in an Adult With Supra-Refractory Status Epilepticus From Anti-LG11 Encephalitis**  
*Morrakot Suwannakarn, Thailand*
- **Effects of Fish Oil Supplementation on Biochemical Profile of Obese Children: A Randomised Control Trial**  
*Nor Baizura Md. Yusop, Malaysia*
- **Prevalence and Clinical Impact of Vitamin D Deficiency in Critically Ill Korean Patients With Traumatic Injuries: A Single-Center, Prospective, Observational Study**  
*Sung Hoon Cho, South Korea*
- **Effectiveness of Micronutrient-Rich Multi-Seed Powder in Reversing Polycystic Ovarian Syndrome (Pcos) Among Women of Reproductive Age (20-45 Years)**  
*Jyothi Syamala Krishnan, India*
- **Short-Term Prehabilitation Promote Weight Loss and Preserve Muscle Mass Before Bariatric Surgery**  
*Ho Chiou Yi, Malaysia*

📍 *Poster Area*

## RESTORING & REDEFINING CLINICAL NUTRITION

### 1130 - 1300 **Symposium 15 - Nutrition Geriatric**

*Chairpersons:*

*Chalobol Chalernsri, Thailand*

*Reynaldo Sinamban, Philippines*

- **Sarcopenia Among the Elderly**  
*Junko Ueshima, Japan*
- **Encouraging Palatability and Acceptance of Better Nutrition**  
*Wendy Ma, Hong Kong*
- **Understanding the Food Choice of Asian Older Population**  
*Chalobol Chalernsri, Thailand*
- **Tube Feeding: A Feasible Option for the Elderly?**  
*Chong Chin Weun, Malaysia*

### 1300 - 1330 **Closing Ceremony and Prize Presentation**

## RESTORING & REDEFINING CLINICAL NUTRITION

### Day 3 (10th November 2024)

#### 📍 Sarawak Room

##### 0900 - 1030 **Symposium 14 - Nutrition Support in Paediatric**

*Chairpersons:*

*Tae Sok Kun, Malaysia*

*Wendy Ma, Hong Kong, China*

- **Intestinal Failure Associated Liver Disease: When to Worry?**  
*Ajay Jain, United States*
- **Parenteral Nutrition in Preterm Babies**  
*Melissa Sy, Philippines*
- **The Challenges in Managing Intestinal Failure in Paediatric: From Hospital to Home**  
*Grace Paguia, Philippines*
- **Sustaining Paediatric Home Enteral Support**  
*Nur Sakinah Ibrahim, Malaysia*

##### 1130 - 1300 **Symposium 16 - ERAS II**

*Chairpersons:*

*Hans Alexander, Malaysia*

*Tee Sze Chee, Malaysia*

- **Strategies to Achieving the DrEaM in ERAS**  
*How Kwang Yeong, Singapore*
- **Lung and Respiratory Rehabilitation Post Thoracic Surgery**  
*Benedict Dharmaraj, Malaysia*
- **Perioperative Nutritional Issue in Major GI Surgery**  
*PingPing Jia, China*
- **Best Practices in Musculoskeletal Rehabilitation for Ventilated ICU Patients**  
*Benedict Dharmaraj, Malaysia*

### Day 3 (10th November 2024)

#### 📍 Melaka Room

##### 0900 – 1030 **PENSA HOME PN CONSENSUS MEETING**

**RESTORING & REDEFINING CLINICAL NUTRITION**

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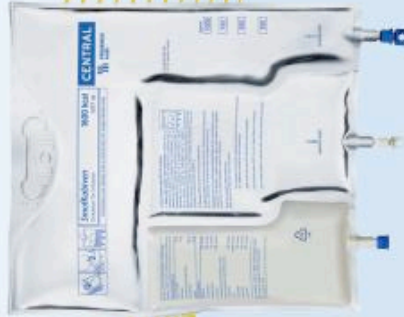


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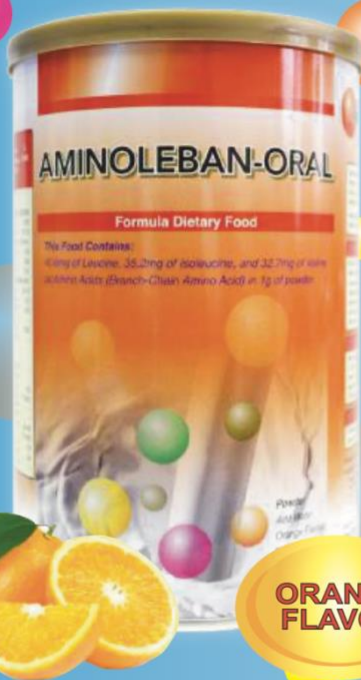
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**References:** 1. Calder PC, et al. *Intensive Care Med* 2010;36:795-89. 2. Ornatto D, et al. *JPEN J Parenter Enteral Nutr* 2000;24:113-8. 3. Osthof E, et al. *Clin Nutr* 2013;32:643-649. 4. Perlas-Arguda A, *Clin Nutr Suppl* 2009;4:19-23. 5. Walzberg D L, et al. *JPEN J Parenter Enteral Nutr* 2005;30:561-67. 6. Cai W et al. *Nutrients* 2018 June 15;10(6):7. 7. Olimel N12E SmPC, 2019. 8. SimoKobiven SmPC, 2017. 9. NutriRes Omega SmPC, 2019. 10. Reimann JM, et al. *Clin Nutr* 2005;23:1024-32.

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## RESTORING & REDEFINING CLINICAL NUTRITION

# Oral Presentation Abstracts

### **ID: PENSA-06**

HOW EFFECTIVE IS SURGICAL GASTROJEJUNOSTOMY FOR MALIGNANT GASTRIC OUTLET OBSTRUCTION? - WITH REGARD TO NUTRITIONAL EVALUATION

*Sekioka A<sup>1</sup>, Ito T<sup>1</sup>, Mizukami Y<sup>1</sup>, Tsuboi K<sup>1</sup>, Sakamoto K<sup>1</sup>, Okamura M<sup>1</sup>, Lee Y<sup>1</sup>, Shim Y<sup>1</sup>, Nakano H<sup>1</sup>, Yasuoka S<sup>1</sup>, and Ota S<sup>1</sup>*

### **ID: PENSA-07**

PROBLEMS FOR NUTRITIONAL SCREENING AND ASSESSMENT ASSOCIATED WITH SPREADING GLIM CRITERIA IN JAPANESE ACUTE CARE HOSPITALS: NATIONWIDE WEB-BASED QUESTIONNAIRE SURVEY

*SYuri Horikoshi<sup>1</sup>, Fumie Egashira<sup>2</sup>, Junko Ueshima<sup>3,4,5</sup>, Satoru Kamoshita<sup>1</sup>, Keisuke Maeda<sup>4,5</sup>*

### **ID: PENSA-08**

IMMUNO-NUTRITION DURING ADJUVANT HYPOFRACTIONATION RADIOTHERAPY IN BREAST CANCER

*Chitapanarux I.<sup>1</sup>, Toapichattrakul P.<sup>1</sup>, Onchan W.<sup>1</sup>, Klunklin P.<sup>1</sup>, Jia-Mahasap B.<sup>1</sup>, Lertsiriladaku T.<sup>1</sup>*

### **ID: PENSA-15**

IMPACT OF SARCOPENIA ON POST-OPERATIVE OUTCOMES FOLLOWING PANCREATODUODENECTOMY

*Radha Reddy Chada.<sup>1</sup>, Jaini Paresh Gala.<sup>2</sup>, Ashwini C.<sup>1</sup>, Monish Karunakaran.<sup>2</sup>, G V Rao.<sup>2</sup>, Pradeep Rebala.<sup>2</sup>, N Balakrishna.<sup>3</sup>*

### **ID: PENSA-16**

VENOUS-TO-ARTERIAL CARBON DIOXIDE TENSION DIFFERENCE MEASUREMENT AS A USEFUL PREDICTOR OF PATIENT PROGNOSIS AFTER MAJOR SURGERY

*Gyeo Ra Lee<sup>1</sup>, MD (presenting author), Eun Young Kim<sup>1</sup>, MD, PhD (corresponding author)*

### **ID: PENSA- 17**

UPDATED META-ANALYSIS COMPARING EARLY ENTERAL NUTRITION WITH EARLY PARENTERAL NUTRITION IN CRITICALLY ILL PATIENTS

*Mina Kim.<sup>1</sup>, KSPEN guideline Committee<sup>2</sup>*

### **ID: PENSA- 20**

NAVIGATING THE IMPACT OF PERSONALIZED PARENTERAL NUTRITION ON CRITICAL ILL PATIENTS: SYSTEMATIC REVIEW AND META-ANALYSIS

*Mohanned M. Gatar<sup>1</sup>, Abdullah M. Garallah<sup>1</sup>, Hanan Y. Sharwani<sup>1</sup>, Waheed Q. Eidah<sup>1</sup>, Qassem Y. Khubrani<sup>1</sup>, Abdulrahman S. Hadad<sup>2</sup>, Tagreed N. Moafa<sup>3</sup>, Amal M. Bajobier<sup>4</sup>, Majed M. Sulayyi<sup>4</sup>, Fahad M. Hakami<sup>5</sup>, Abada A Hakami<sup>6</sup> and Sami A. Jammah<sup>7</sup>*

### **ID: PENSA-23**

TACKLING PEW-ASSOCIATED MUSCLE WASTING IN PATIENTS ON HAEMODIALYSIS: GOING BEYOND THE BASICS WITH INTRADIALYTIC PARENTERAL NUTRITION

*Sadu Singh BK<sup>1</sup>, Khor BH<sup>2</sup>, Sahathevan<sup>3</sup> S, Lim A<sup>4</sup>, Abdul Gafor AH<sup>5</sup>, Fiaccadori E<sup>6</sup>, Karupaiah T<sup>7</sup> and HDinNS investigators*

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*Hu Yu-Ru<sup>1</sup>, Lu Meng-Chun<sup>1,2</sup>, Chang Ying-Fang<sup>3</sup>, Yang Kai-Ling<sup>3</sup>, Lu Wan-Yu<sup>3</sup>, Lin Yi-Li<sup>3</sup>, Kuo Huey-Liang<sup>1,3</sup>*

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FACTORS AFFECTING TO ENERGY EXPENDITURE MEASUREMENT BY INDIRECT CALORIMETRY AMONG CRITICALLY ILL PATIENTS WITH ACUTE KIDNEY INJURY

*Wittawat Hongmeng<sup>1</sup>, Aphichat Chatkrailert<sup>2</sup>*

### **ID: PENSA-37**

A COMPARATIVE ANALYSIS OF NUTRITIONAL ASSESSMENT USING GLOBAL LEADERSHIP INITIATIVE ON MALNUTRITION VERSUS SUBJECTIVE GLOBAL ASSESSMENT IN MAINTENANCE OF HEMODIALYSIS PATIENTS TLE

*Ms.AiswaryaRajPR<sup>1</sup>, Ms.TanavarapuJayasr<sup>2</sup>, Dr.N.Balakrishna<sup>3</sup>*



## RESTORING & REDEFINING CLINICAL NUTRITION

### ID: PENSA-44

TAILORING PARENTERAL NUTRITION FOR ADULTS AT RISK OF REFEEDING SYNDROME: A STRATEGIC APPROACH TO PROFILE PN CONTENT WITH STABILITY EVIDENCE

*Shaari N. A. A. H.<sup>1</sup>, Singh B. K. S.<sup>2</sup>, Premakumar C. M.<sup>1</sup>*

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THE EFFECTIVE OF CHANGING THE TEXTURE OF FOOD FOR PROMOTING BODY WEIGHT OF LOW BMI DYSPHAGIA ELDER

*Shu Ting Chan<sup>\*1</sup>, Hong, Jing-Dun<sup>1</sup>, Zhang, Zhen-Wei<sup>1</sup>*

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A COMPARITIVE STUDY ON PRE-OPERATIVE CARBOHYDRATE LOADING IN ORTHOPEDIC PATIENTS -ERAS PROTOCOL (2017-2024)

*Ananya Konar<sup>1</sup>, Vijayalaxmi Sirasangi<sup>1</sup>, Sandhya Singh<sup>1</sup>, Swathi SM<sup>1</sup>, Muralidhar Thondebhavi<sup>2</sup>*

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*Mehraa S<sup>1</sup>, More<sup>1</sup>, Singh A<sup>1</sup>*

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UTILITY OF BIOELECTRICAL IMPEDANCE ANALYSIS (BIA) IN ASSESSMENT OF SKELETAL MUSCLE MASS IN PATIENTS UNDERGOING METABOLIC BARIATRIC SURGERY

*Vasudayan SR.<sup>1</sup>, Loo GH.<sup>1</sup>, Kosai NR.<sup>1</sup>*

### ID: PENSA-78

TAILORING PARENTERAL NUTRITION FOR ADULTS AT RISK OF REFEEDING SYNDROME: A STRATEGIC APPROACH TO PROFILE PN CONTENT WITH STABILITY EVIDENCE

*Shaari N. A. A. H.<sup>1</sup>, Singh B. K. S.<sup>2</sup>, Premakumar C. M.<sup>1</sup>*

### ID: PENSA-82

EFFECT OF EXERCISE PREHABILITATION ON FUNCTIONAL PERFORMANCE IN PATIENTS AWAITING FOR CARDIOTHORACIC SURGERY. A FEASIBILITY PILOT RCT

*Md Ali Katijjahbe<sup>1,2,4</sup>, Nurdiana Ismail<sup>1,4</sup>, Siti 'Aisyah bt Amran<sup>1</sup>, Nur Fatimah Ahmad Yazid<sup>1</sup>, Nur Ayub Md Ali<sup>2,3</sup>, Nor Azura Azmi<sup>3</sup>*

### ID: PENSA-83

EFFECT OF GRADUATED EXERCISE BASED PREHABILITATION VERSUS STANDARD CARE ON PSYCHOLOGICAL RECOVERY AND HEALTH-RELATED QUALITY OF LIFE IN PATIENTS AWAITING FOR CARDIOTHORACIC SURGERY- A PILOT RCT

*Md Ali Nur Ayub<sup>1,2,4</sup>, Md Ali Katijjahbe<sup>2,4</sup>, Aimi Munirah Abd Rahman<sup>3</sup>, Zamsuril Lok<sup>3</sup>, Hazwan Ab Rahim<sup>3</sup>, Nor Azura Azmi<sup>5</sup>*

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*Anak Agung Sagung Mirah Prabandari<sup>1</sup>, Agustinus I Wayan Harimawan.<sup>1</sup>*

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*Alexander ZY Lim, Pei Pei Lee, Yvonne YY Wong, Caryn JW Leong, Wei Keat Ooi*

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*Cuevas, D.F.<sup>1</sup>, Redondo-Samin, D.C.<sup>2,3</sup>, Ceballos-Marasigan, V.<sup>3</sup>, Frane, R.<sup>4</sup>, Flores, A.R.<sup>3</sup>*

### ID: PENSA-104

ASSOCIATION BETWEEN EARLY ENTERAL NUTRITION (WITHIN 12 HOURS) AND CLINICAL OUTCOMES IN CRITICALLY ILL OBESE INDIAN PATIENTS: AN OBSERVATIONAL STUDY

*Ms. S. Ramya<sup>1</sup>, Dr. R. Ebenezer<sup>2</sup>, Dr. L. Uthira<sup>3</sup>*

## RESTORING & REDEFINING CLINICAL NUTRITION

### **ID: PENSA-105**

ANALYSIS OF THE IMPACT OF NUTRITIONAL STATUS AND ADEQUACY OF ENTERAL NUTRITION SUPPORT IN THE CLINICAL OUTCOMES OF CRITICALLY ILL PATIENTS

*Dr. Daphnee Lovesley<sup>1</sup>, Srividhya<sup>1</sup>, Uma Maheswari K<sup>1</sup>, Anitha Kumari R U<sup>1</sup>, Priya E<sup>1</sup>, Lasya Priya<sup>1</sup>, Rajalakshmi P<sup>1</sup>*

### **ID: PENSA-106**

FEASIBILITY OF IMPROVING CLINICAL OUTCOMES OF CRITICALLY ILL OBESE INDIAN PATIENTS BY USING AN INDIVIDUALIZED HYPOCALORIC, HIGH PROTEIN ENTERAL NUTRITION PROTOCOL - A PILOT STUDY.

*Ms. S. Ramya<sup>1</sup>, Dr. L. Uthira<sup>2</sup>, Dr. R. Ebenezer<sup>3</sup>*

### **ID: PENSA-108**

EVALUATING THE EFFICACY OF ORAL NUTRITIONAL SUPPLEMENTATION ON CLINICAL OUTCOMES USING HAND GRIP STRENGTH COMPARED TO SUBJECTIVE ASSESSMENTS

*Dr. Daphnee Lovesley<sup>1</sup>, Rajalakshmi P<sup>1</sup>, Zahira A<sup>1</sup>, Merlin Roshani<sup>1</sup>, Dhanushree<sup>1</sup>, Megala G<sup>1</sup>, Bhargavi V<sup>1</sup>, Srividhya M<sup>1</sup>, Uma Maheswari<sup>1</sup>, Anitha Kumari<sup>1</sup>, Priya E<sup>1</sup>, Lasya Priya<sup>1</sup>, Uma Maheshwari M<sup>1</sup>, Rajeshwari S<sup>1</sup>*

### **ID: PENSA-109**

ASSESSMENT OF SARCOPENIA AND MALNUTRITION IN HOSPITALIZED NON-CRITICALLY ILL PATIENTS USING MULTIVARIATE ASSESSMENT TOOLS: A MULTICENTRIC STUDY

*Dr. Daphnee Lovesley<sup>1\*</sup>, Rajalakshmi Parasuram<sup>1</sup>, Subha. N, Kowlini<sup>1</sup>. M, Raja Kumari. R<sup>1</sup>, Rekha. D<sup>1</sup>, Ramya.S<sup>1</sup>*

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-06

### HOW EFFECTIVE IS SURGICAL GASTROJEJUNOSTOMY FOR MALIGNANT GASTRIC OUTLET OBSTRUCTION? - WITH REGARD TO NUTRITIONAL EVALUATION

*Sekioka A<sup>1</sup>, Ito T<sup>1</sup>, Mizukami Y<sup>1</sup>, Tsuboi K<sup>1</sup>, Sakamoto K<sup>1</sup>, Okamura M<sup>1</sup>, Lee Y<sup>1</sup>, Shim Y<sup>1</sup>, Nakano H<sup>1</sup>, Yasuoka S<sup>1</sup>, and Ota S<sup>1</sup>*

*<sup>1</sup>Osaka Saiseikai-Noe Hospital*

#### Introduction

Malignant Gastric Outlet Obstruction (MgOO) Can Negatively Influence the Quality Of Life And Future Treatment. Surgical Gastrojejunostomy Is an Effective Option to Relieve Symptoms, Having Merits Of Fewer Re-Interventions. The Purpose of This Study Is to Clarify the Factors Which Can Influence The Outcomes Of Gastrojejunostomy and Evaluate Nutritional Status During the Peri-Operative Period.

#### Materials / Methods

This Retrospective Cohort Study Was Conducted at a Single Center from January 2013 To December 2023. Patients With MgOO Underwent Open Or Laparoscopic Gastrojejunostomy. The Cases With Resectable Malignancy Were Excluded. The Surgical Procedure Was Modified Devine Exclusion. They Were Divided Into Long-Survived (100 Days or More) And Short-Survived Group (Less Than 100 Days), And Their Characteristics And Perioperative Data Were Compared.

#### Findings / Results

In Total, 25 Patients Were Reviewed, Who Underwent Surgery For MgOO (Long-Survived Group, 16; Short-Survived Group, 9), And The Total Clinical Success Rate Was 96%. The Total Lymphocyte Count Significantly Increased In One Month Postoperatively ( $P=0.003$ ), While The Level Of Albumin Did Not Significantly Change ( $P=0.8$ ). In Comparison Between Long-Survived And Short-Survived Group, There Were No Significant Differences In Some Parameters (Age, Sex, Body Mass Index, Type Of Malignancy, Malignant Stage, Gastric Outlet Obstruction Scoring System, Preoperative Vomit, Nasogastric Tube Placement, Surgical Approach, Postoperative Complications, Length Of Postoperative Hospital Stay). Meanwhile, Patients In Long-Survived Group Had Significantly Better Performance Status (Ps), Lower Level Of Preoperative C-Reactive Protein (Crp), Higher Rate Of Postoperative Chemotherapy, And Higher Level Of Albumin In One Month Postoperatively.

#### Discussion / Conclusion

In Our Study, Surgical Gastrojejunostomy Had A High Rate Of Clinical Success. Additionally, Postoperative Stable Oral Intake Would Be Helpful In Increasing Lymphocyte Count. Patients Who Had Better Ps, Lower Crp, And Was Tolerated To Chemotherapy Would Be Expected To Live Longer. To The Best Of Our Knowledge, This Is The First Report To Describe The Change Of Nutritional Parameters In The Peri-Operative Period Of Gastrojejunostomy.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-07

### PROBLEMS FOR NUTRITIONAL SCREENING AND ASSESSMENT ASSOCIATED WITH SPREADING GLIM CRITERIA IN JAPANESE ACUTE CARE HOSPITALS: NATIONWIDE WEB-BASED QUESTIONNAIRE SURVEY

*SYuri Horikoshi<sup>1</sup>, Fumie Egashira<sup>2</sup>, Junko Ueshima<sup>3,4,5</sup>, Satoru Kamoshita<sup>1</sup>, Keisuke Maeda<sup>4,5</sup>*

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*<sup>2</sup>PEACH atsugi of Community Nutritional Care Center*

*<sup>3</sup>NTT Medical Center Tokyo*

*<sup>4</sup>Aichi Medical University*

*<sup>5</sup>National Center for Geriatrics and Gerontology*

#### Introduction

As The Malnutrition Of Hospitalized Patients Leads To Poor Outcomes, An Adequate Diagnosis Is Required. The Global Leadership Initiative On Malnutrition (Glim) Criteria Was Proposed By The Societies For Clinical Nutrition In European, North American, South American, And Asian Countries As The Global Malnutrition Diagnosis Criteria (2019), And Spreading It Out Is The Issue To Solve; However, The Popularization Status In Japan Is Unclear. We Conducted A Web-Based Questionnaire Survey On Nutritional Screening And Assessment To Clarify The Status And Problems Associated With Spreading Glim Criteria.

#### Materials / Methods

We Outsourced The Web-Based Questionnaire System Construction, Survey Implementation, And Data Curation To An Independent Third Party. The Study Institutions Were 5,378 Japanese Nationwide Acute Care Hospitals And The Staffing System And Contents Of Screening And Assessment For Hospitalized Patients Were Investigated. A Survey Request Letter Was Sent To A Delegate Of The Registered Dietitians (Rds) And Responses Were Accepted From April To June 2023.

#### Findings / Results

The Response Was Obtained From 905 (16.8%) Institutions. For Screening, 724 (80.0%) Implemented It In All Patients, The Primary Personnel In Charge Were Rds, And The Tool Used Most Often Was The Subjective Global Assessment (Sga) (Non-Screening Tool) (N= 418), Followed By The Mini Nutritional Assessment Short-Form (Mna-Sf) (N=190) And The Controlling Nutritional Status (Conut) (N=127). For Assessment, 598 (66.1%) Implemented It In All Patients, The Primary Personnel In Charge Were Rds, And The Tool Used Most Often Was The Sga (N=356), Followed By The Mna-Sf (N=156), The Conut (N=135), And The Glim (N=97). The Assessment Evaluation Item Most Often Was Food Intake (N=828), Followed By Bmi (N=798) And Albumin (N=756). The Muscle Mass Was Least Evaluated (N=115). Among The Institutions Conducting Assessment (N=887), The Nutritional Diagnosis Was Determined In 124 (14.1%) And Malnutrition Diagnosis Was Performed In 259 (29.2%), Of Which 99 (38.2%) Used Glim Criteria.

#### Discussion / Conclusion

In Japan, Usage Of The Glim Criteria Was Limited In A Few Hospitals. Issues Are As Follows: Use Of Appropriate Screening Tools And Establishment Of Efficient Staffing System; Assessment Focusing On The Patients With Nutritional Risk; Development Of Muscle Mass Evaluation System; Awareness Of The Meaning Of Malnutrition Diagnosis.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-08

### IMMUNO-NUTRITION DURING ADJUVANT HYPOFRACTIONATION RADIOTHERAPY IN BREAST CANCER

*Chitapanarux I.<sup>1</sup>, Toapichattrakul P.<sup>1</sup>, Onchan W.<sup>1</sup>, Klunklin P.<sup>1</sup>, Jia-Mahasap B.<sup>1</sup>, Lertsiriladaku T.<sup>1</sup>*

*<sup>1</sup> Division of Radiation Oncology, Department of Radiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand*

#### Introduction

Radiotherapy (Rt) Is A Mandatory Treatment In Almost Every Stage Of Breast Cancer (Bc) Patients Who Was Previously Treated By Surgery With Or Without Chemotherapy To Reduce Breast Cancer Recurrence. Previous Study<sup>1</sup> Found Significant Immune Defects In Bc Patients During And After Rt. Hypofractionation Radiotherapy (Hypo-Rt), The Delivery Of Fewer But Higher Dose Per Fraction, Is Increasingly Being Used To Treat Bc. This Study Aimed To Determine The Effects Of Immuno-Nutrition (In) During Adjuvant Hypo-Rt, On Leucopenia, Neutropenia, And The Overall Treatment Time (Ott).

#### Materials / Methods

This Study Was Retrospectively Conducted On Bc Patients Who Received Adjuvant Hypo-Rt To Breast Or Chest Wall With Or Without Regional Nodal Irradiation (Rni) Between October 2017 And February 2021. Patients Who Had Completed Treatment And Had Available Complete Blood Count Data Before And During The 1St, 2Nd, And 3Rd Week Of Adjuvant Rt Were Included. We Matched 23 Patients Who Received In At The Beginning Of Rt (Group In) To 23 Patients Who Did Not Receive In (Group C) Based On Demographic Criteria. White Blood Cells And Absolute Neutrophil Counts At Each Timepoint Between 2 Groups Were Compared By T-Test.

#### Findings / Results

There Were No Significant Differences In Patient Characteristics Between Both Groups. During Hypo-Rt, Significant Continuous Reduction Of Both White Blood Cell (Wbc) Count And Absolute Neutrophil Count (Anc) Can Be Observed From The 2Nd To The 3Rd Week In All Patients. As Shown In Figure 1, Mean Wbc Count, And Anc Count In Group In Were Significantly Higher Than That Of Group C During The 2Nd And 3Rd Week Of Hypo-Rt. Median Ott For Group C Was Significantly Longer Than Group In (26 Vs 22 Days);  $P < 0.001$ .

#### Discussion / Conclusion

Supplementation Of Immuno-Nutrition In Breast Cancer Patients Undergoing Adjuvant Hypofractionation Radiotherapy Significantly Reduced The Incidence Of Leukopenia And Neutropenia And Did Not Prolong The Ott.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-15

### IMPACT OF SARCOPENIA ON POST-OPERATIVE OUTCOMES FOLLOWING PANCREATODUODENECTOMY

Radha Reddy Chada.<sup>1</sup>, Jaini Paresh Gala.<sup>2</sup>, Ashwini C.<sup>1</sup>, Monish Karunakaran.<sup>2</sup>,  
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#### Introduction

Sarcopenia Is Consistently Recognized As A Prognostic Factor In Chronic Diseases And Is Linked To Increased Mortality In Cancer Patients Due To Both Reduced Muscle Mass And Function. This Study Aimed To Assess The Diagnosis Of Sarcopenia And Its Implications On Post-Operative Outcomes Among Patients Undergoing Pancreatoduodenectomy For Pancreatic Cancer.

#### Materials / Methods

Total Skeletal Muscle Area (Sma), Total Skeletal Muscle Index (Smi) Derived From Abdominal Computed Tomography (Ct) Scans, And Handgrip Strength (Hgs) Were Quantified Using Sex-Specific Asian Sarcopenia Criteria. The Impact Of Sarcopenia And The 6-Minute Walk Distance (6-Mwd) On Hospital Length Of Stay (Los) And Mortality Post-Surgery Were Analyzed.

#### Findings / Results

A Total Of 122 Patients (91 Males, 31 Females) With An Average Age Of  $57.3 \pm 10.79$  Years Underwent Assessment. The Prevalence Of Low Smi Across All Age Groups Was 42.6%, With Higher Rates In Females (71%) Compared To Males (33%). Decreasing Bmi Correlated With Increasing Prevalence Of Low Smi: 84.6% In Underweight, 53.8% In Normal Weight, And 28.6% In Overweight And Obese Patients ( $P < 0.00$ ). Low Hgs Was More Prevalent In Females (48.4%) Than Males (29.7%), Largely Due To Lower Smi. Both Low Smi ( $P = 0.021$ ) And Low Hgs ( $P < 0.00$ ) Increased With Age. The Prevalence Of Sarcopenia (18.9%), Defined As Low Hgs And Smi, Increased With Age From 10% In  $< 53$  Years And 54-61 Years Age Groups To 34.9% In  $> 62$  Years Age Group ( $P = 0.004$ ). Females Exhibited A Significantly Higher Prevalence Of Sarcopenia (41.9%) Compared To Males (11%) ( $P < 0.00$ ). At Admission, 79% Of Patients Had 6-Mwd Values Below Reference Levels. Mortality Was Significantly Correlated With Sarcopenia, With A Higher Mortality Rate Of 57.1% In Sarcopenic Patients Compared To 42.9% In Non-Sarcopenic Patients ( $P = 0.008$ ). However, Los Did Not Show A Significant Correlation With Sarcopenia. Additionally, 6-Mwd Did Not Correlate With Either Mortality Or Los.

#### Discussion / Conclusion

Routine Assessment For Sarcopenia And Frailty Risk Should Be Integrated Into Standard Patient Care Protocols. Early Identification Of Sarcopenia And Monitoring Of 6-Mwd Could Offer A Therapeutic Window Where Timely Interventions Can Be Beneficial.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-16

### VENOUS-TO-ARTERIAL CARBON DIOXIDE TENSION DIFFERENCE MEASUREMENT AS A USEFUL PREDICTOR OF PATIENT PROGNOSIS AFTER MAJOR SURGERY

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#### Introduction

Change In Venous-To-Arterial Carbon Dioxide Partial Pressure Difference[P(V-A)Co<sub>2</sub>] Could Be A Useful Marker To Assess Tissue Perfusion Status. Herein, We Assessed The Predictive Values Of Postoperative P(V-A)Co<sub>2</sub> Measurements For Mortality In Critically Ill Patients After Major Surgery. The Correlation Between P(V-A)Co<sub>2</sub> Values And Other Conventional Parameters Of Patient Prognosis Was Also Evaluated.

#### Materials / Methods

Patients Admitted To The Intensive Care Unit(Icu) After Abdominal Surgery Were Enrolled. Arterial And Venous Blood Gas Analyses Were Performed Within 1 Hour(T<sub>0</sub>) And After 24 Hours(T<sub>1</sub>) Of Admission To The Icu, Respectively. The Relationship Between P(V-A)Co<sub>2</sub> Levels At T<sub>1</sub> And Other Conventional Parameters Were Assessed Using A Bland-Altman Plot. Logistic Regression Analysis Was Performed To Examine The Predisposing Factors Of Mortality After Surgery.

#### Findings / Results

A Total Of 231 Patients Were Finally Analyzed. We Divided The Participants Into The High Pvaco<sub>2</sub> Group[P(V-A)Co<sub>2</sub>≥8.6] And The Low Pvaco<sub>2</sub> Group[P(V-A)Co<sub>2</sub><8.6]. Seven-Day-, 28-Day, And In-Hospital Mortality Were Significantly Higher In The High Pvaco<sub>2</sub> Group Than In The Low Pvaco<sub>2</sub> Group. There Was Significant Agreement Between P(V-A)Co<sub>2</sub> Values At T<sub>1</sub> And Apache Ii Scores, Lactate Levels At T<sub>1</sub> And Total Sofa Scores At T<sub>1</sub>. In Multivariate Logistic Analysis, An Increased P(V-A)Co<sub>2</sub> Value At T<sub>1</sub> Was The Only Significant Risk Factor Of 7-Day Mortality After Surgery. [Odds Ratio:1.341, 95%Confidence Interval: 1.050-1.714, P=0.019].

#### Discussion / Conclusion

A Total Of 231 Patients Were Finally Analyzed. We Divided The Participants Into The High Pvaco<sub>2</sub> Group[P(V-A)Co<sub>2</sub>≥8.6] And The Low Pvaco<sub>2</sub> Group[P(V-A)Co<sub>2</sub><8.6]. Seven-Day-, 28-Day, And In-Hospital Mortality Were Significantly Higher In The High Pvaco<sub>2</sub> Group Than In The Low Pvaco<sub>2</sub> Group. There Was Significant Agreement Between P(V-A)Co<sub>2</sub> Values At T<sub>1</sub> And Apache Ii Scores, Lactate Levels At T<sub>1</sub> And Total Sofa Scores At T<sub>1</sub>. In Multivariate Logistic Analysis, An Increased P(V-A)Co<sub>2</sub> Value At T<sub>1</sub> Was The Only Significant Risk Factor Of 7-Day Mortality After Surgery. [Odds Ratio:1.341, 95%Confidence Interval: 1.050-1.714, P=0.019].

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA- 17

### UPDATED META-ANALYSIS COMPARING EARLY ENTERAL NUTRITION WITH EARLY PARENTERAL NUTRITION IN CRITICALLY ILL PATIENTS

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#### Introduction

To Compare The Effects Of Early Enteral Nutrition (Een) And Parenteral Nutrition (Pn) In Critically Ill Patients.

#### Materials / Methods

Based On Previous Meta-Analyses And Guidelines, We Conducted A Literature Search Using Embase, Pubmed, Cochrane, And Koreamed From March 2016 To June 2023. We Screened 35 Studies For Randomized Controlled Trials (Rcts) Comparing Enteral Nutrition With Parenteral Nutrition In Critically Ill Patients. Two Additional Rcts Identified During This Period Were Included, Alongside 18 Studies From The Previous Meta-Analysis. Data From A Total Of 20 Rcts Involving 6,054 Participants Were Extracted And Analyzed. Key Outcomes Assessed Included Overall Mortality, Incidence Of New Infections, Length Of Stay (Los) In The Intensive Care Unit (Icu) And Hospital (H-Los), Duration Of Mechanical Ventilation (Mv), Incidence Of New Organ Dysfunction, And Gastrointestinal Complications. The Meta-Analysis Was Conducted Using A Fixed-Effects Model With Review Manager Version 5.4 (Cochrane Collaboration'S Software, 2020).

#### Findings / Results

Compared To Parenteral Nutrition, Early Enteral Nutrition (Een) Was Not Associated With Overall Mortality (Odds Ratio (Or) 1.0; 95% Confidence Interval (95% Ci) 0.94 To 1.08, P=0.92). However, Een Showed Significant Benefits Including A Lower Risk Of Infections (Or 0.61; 95% Ci 0.47 To 0.79, P=0.002), Reduced Occurrence Of New Organ Dysfunction (Or 0.59, 95% Ci 0.38 To 0.90, P=0.02), And Shorter Lengths Of Stay In The Intensive Care Unit (Icu) (Mean Difference (Md) -0.88, 95% Ci -1.32 To -0.45, P<0.01) And Hospital (H-Los) (Md -0.90, 95% Ci -1.13 To -0.67, P<0.001). Additionally, Een Was Associated With Fewer Days Of Mechanical Ventilation (Mv) (Md -1.35, 95% Ci -2.08 To -0.64, P=0.0002). However, Gastrointestinal Complications Including Diarrhea And Vomiting Were More Common In The Een Group (P=0.005).

#### Discussion / Conclusion

Early Enteral Nutrition Demonstrates Beneficial Effects In Critically Ill Adult Patients, Particularly In Reducing The Incidence Of New Infections, Organ Dysfunction, And Duration Of Icu And Mv Days. However, It Does Not Impact Overall Mortality. Therefore, Early Enteral Nutrition Should Be Implemented For Critically Ill Adult Patients Following Icu Admission.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA- 20

### NAVIGATING THE IMPACT OF PERSONALIZED PARENTERAL NUTRITION ON CRITICAL ILL PATIENTS: SYSTEMATIC REVIEW AND META-ANALYSIS

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#### Introduction

The Growing Burden Of Diseases, Perinatal And Maternal Conditions, And Injury-Related Disorders Has Led To A Dual Challenge Of Malnutrition, Characterized By Both Overnutrition And Undernutrition. Parenteral Nutrition (Pn) Provides Intravenous Nutritional Support For Patients Who Are Unable To Tolerate Enteral Nutrition (En). Understanding The Impacts Of Pn On Key Health Parameters Can Facilitate Faster Recovery And Improved Overall Health Outcomes And Quality Of Life For Critically Ill Patients. This Systematic Review And Meta-Analysis Aimed To Comprehensively Evaluate The Impacts Of Personalized Pn On Critically Ill Adult Patients, With A Focus On Critical Outcomes Including Length Of Stay (Los) In The Intensive Care Unit (Icu), Metabolic Parameters Such As Glucose Regulation, And Mortality Rate.

#### Materials / Methods

A Robust Literature Search Was Conducted Across Pubmed, Google Scholar, And Nih Databases, Targeting Studies Published Within The Last 4 Years (2020-2024). Of The 3535 Articles Identified, 19 Peer-Reviewed Studies Met The Inclusion Criteria Based On Keywords Related To Parenteral Nutrition And Full-Text Availability.

#### Findings / Results

The Meta-Analysis Of The Included Pn Studies On Critically Ill Adults Demonstrated Low Heterogeneity, Indicating Consistent Outcomes Such As Improved Blood Glucose Regulation, Reduced Mortality Rates, And Shorter Hospital Los. This Consistency Strengthens The Reliability And Generalizability Of The Findings, Providing Clinicians And Policymakers Confidence In The Beneficial Effects Of Personalized Pn.

#### Discussion / Conclusion

This Meta-Analysis Of Studies Highlighted The Complexities And The Need For Individualized Treatment Approaches And Further Research Due To Challenges Like Hyperglycemia Management, Liver Disease Risk, And Increased Mortality In Certain Populations.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-23

### TACKLING PEW-ASSOCIATED MUSCLE WASTING IN PATIENTS ON HAEMODIALYSIS: GOING BEYOND THE BASICS WITH INTRADIALYTIC PARENTERAL NUTRITION

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#### Introduction

Protein Energy Wasting (Pew) Is A Significant Contributor) To Morbidity And Mortality In Chronic Kidney Disease. Poor Oral Intake Is Marked In Pew Patients.

#### Materials / Methods

We Compared The Effects Of (Idpn + Nutrition Counselling, Nc) Vs Nc In Hd Patients With Pew And Intolerant To Oral Nutrition Supplements (Ons) In Malaysian Outpatient Hd Settings As Proposed By The International Society Of Renal Nutrition And Metabolism (Isrnm). The Hemodialysis Nutrition Study (Hdins), A Multicentre Open-Label Randomized Controlled Trial, Recruited 44 Hd Patients Identified With Pew As Per Isrnm Criteria (Any 3 Of 4) And With Poor Ons Tolerance. Patients Randomized To Idpn Intervention (N=23) Received A Commercial Standard 3-Chamber Bag (740Kcal, 625MI And 36Gm Protein) Along With Nc For 6 Months Whilst The Control Group (N=21) Received Nc Only. Treatment Effects Were Evaluated As Per Body Weight, Skinfolds, Biochemistry, Malnutrition-Inflammation-Score (Mis), Quadriceps Muscle Status Assessed Using Ultrasound Imaging (Us), Handgrip Strength (Hgs) Method, Bio-Impedance Spectroscopy (Bis) And Appetite Assessment Using The Generalized Linear Model For Repeated Measures To Test Group X Time Interactions.

#### Findings / Results

Increase In Arm Muscle Area (P=0.035) And Circumference (P=0.047) Along With Mid-Thigh Girth (P=0.012) Only Associated With The Treatment Group. Serum Pre-Albumin, Albumin, Il6, Bis Metrics And Hgs Were Not Significant (P>0.05) For Both Groups. Muscle Indices As Per Us Metrics Improved Significantly (P<0.05) For Only Idpn+Nc Along With Lower Mis (P<0.001). Poor Appetite Reduced Significantly After Intervention With Idpn+Nc Compared With Nc Alone (P=0.014). At The End Of The Study, Fewer Patients Receiving Idpn+Nc Were Diagnosed With Pew (35.0%, P=0.036) Compared To The Nc Group (65.0%).

#### Discussion / Conclusion

Combination Of Idpn With Nc Was Effective In Treating Pew And Contributed To Gain In The Muscle Status Suggesting That The Treatment For Pew Requires Intensive Supplementation When Oral Or Ons Fails.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-24

### THE EFFECT OF PERSONALIZE DIETARY INTERVENTION ON HYPERPHOSPHATEMIA IN PATIENTS WITH HEMODIALYSIS

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#### Introduction

Hemodialysis May Cause Metabolic Dysfunction In Patients, Such As Hyperphosphatemia. Phosphorus-Restricted Diets Can Improve Serum Phosphate Levels. Dietary Interventions Can Also Improve The Biochemical Values Of Hemodialysis Patients. This Study Aims To Evaluate The Body Composition Data And Nutrition-Related Biochemical Data In Hemodialysis Patients With Hyperphosphatemia After Dietitians Provide Personalized Dietary Instruction.

#### Materials / Methods

Participants Were Hemodialysis Patients From A Medical Center, Aged  $\geq 18$  Years With Serum Phosphorus Levels  $\geq 7.0$  Mg/Dl For Three Consecutive Months. All 44 Patients Were On Phosphate Binder Therapy. Participants Were Divided Into An Intervention Group (23 Patients) And A Control Group (21 Patients) Based On Whether They Received Personalized Dietary Education From A Registered Dietitian. The Dietitian Provided Education At Baseline (T0) And Followed Biochemical Values After Four Weeks (T4) And Eight Weeks (T8) To Assess Dietary Adherence. Statistical Analysis Was Performed Using The Spss 23 Statistical Program. Categorical Variables Were Analyzed Using Pearson Chi-Square Test, Continuous Variables Using T-Test. The Paired Student'S T-Test Was Used For The Data Changes In T0, T4 And T8. A Probability Of Error Of  $< 0.05$  Was Considered To Be Significant.

#### Findings / Results

The Intervention Group Showed A Significant Reduction In Serum Phosphorus Levels From Baseline ( $8.63 \pm 1.07$  Mg/Dl) To  $7.30 \pm 1.58$  Mg/Dl After Four Weeks ( $P=0.001$ ), And Further To  $6.24 \pm 1.45$  Mg/Dl After Eight Weeks ( $P < 0.001$ ) After Dietitian Provided Personalize Dietary Instruction. The Control Group Did Not Show Significant Differences Between Baseline And The Fourth Or Eighth Week.

#### Discussion / Conclusion

Personalized Dietary Intervention Significantly Improved Serum Phosphorus Levels In Hemodialysis Patients With Hyperphosphatemia. Further Research Is Needed To Explore These Changes And Validate Our Findings.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-27

### FACTORS AFFECTING TO ENERGY EXPENDITURE MEASUREMENT BY INDIRECT CALORIMETRY AMONG CRITICALLY ILL PATIENTS WITH ACUTE KIDNEY INJURY

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#### Introduction

Adequate Nutritional Support Has Been Associated with Reduced Mortality Rates and Increased Efficiency in Patient Care. Currently, Indirect Calorimetry (Ic) Serves as A Crucial Tool for Assessing Energy Expenditure in Patients Including Critically Ill Patients with Acute Kidney Injury (Aki). However, In Limited Resource Situations, An Energy Expenditure Equation Might Be Applicable Rather Using Ic. Furthermore, There Is No Validated Energy Expenditure Equation for Such Patients. This Study Aimed to Investigate Factors Influencing Energy Requirements and Establish a Relationship Equation to Guide Energy Goals in Critically Ill Patients with Acute Kidney Injury (Aki).

#### Materials / Methods

A Cross-Sectional Study Involved Patients With Aki Who Were Critical Ill. Data Collection Included Basic Patient Information, Clinical Data, And Laboratory Results. Indirect Calorimetry Was Applied To Measure Energy Expenditure And Classify Patients Into Hypermetabolism, Normometabolism, And Hypometabolism Based On The Ree/Bee Ratio. Parameters Influencing The Determination Of Energy Requirements Were Explored, And An Energy Expenditure Equation Was Developed Through Regression Analysis.

#### Findings / Results

Recruiting 80 Critically Ill Aki Patients, The Study Revealed A Mean Age Of  $69.8 \pm 15.14$  Years, With 58.75% Males. Serum Creatinine At Admission Averaged  $2.44 \pm 1.58$ , With Pre-Renal Aki Stage I As The Primary Cause (57.5%). The Average Ic-Derived Energy Expenditure Was  $1,585.29 \pm 452.60$  Kcal/Day, And The Average Basal Energy Expenditure Was  $1298.29 \pm 261.84$  Kcal/Day. Classified By Ree/Bee Ratio, Participants Included 45% Hypermetabolism, 36.5% Normometabolism, And 18.75% Hypometabolism. The Predictive Equation For Energy Expenditure (Kcal/Day) Was  $1304.18 + 9.24 \times \text{Weight In Kg} - 9.11 \times \text{Age In Years} + 77.38 \times \text{Sex (Male = 1, Female = 0)}$  (R-Square = 80.05%,  $P < 0.0001$ ).

#### Discussion / Conclusion

Most Critically Ill Aki Patients Exhibited Hypermetabolism, Primarily Influenced By Age, Sex, Body Weight. The Formula For Energy Expenditure From This Study Appears Practical, Cost-Effective, And May Complement Or Replace Indirect Calorimetry, Offering Valuable Guidance For Managing Energy Expenditure In Critically Ill Aki Patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-37

### A COMPARATIVE ANALYSIS OF NUTRITIONAL ASSESSMENT USING GLOBAL LEADERSHIP INITIATIVE ON MALNUTRITION VERSUS SUBJECTIVE GLOBAL ASSESSMENT IN MAINTENANCE OF HEMODIALYSIS PATIENTS TLE

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#### Introduction

Malnutrition Is A Common Complication In Patients Undergoing Maintenance Hemodialysis (Hd). Nutritional Screening Tools May Be Useful For Identifying Patients At A Nutritional Risk. Our Aim Was To Compare The Concurrent Validity Of The Subjective Global Assessment And Glim Criteria For Malnutrition In Maintenance Hemodialysis Patients.

#### Materials / Methods

This Prospective Comparative Study Included 100 Outpatients With A Mean Age Of  $56.1 \pm 15.44$  Years And A Median Dialysis Vintage Of 2 Years Undergoing Hemodialysis, And The Sga And Glim Tools Were Assessed For Their Validity In Diagnosing Malnutrition. Nutritional Assessments Including History Taking, Anthropometric, Etiological Criteria And Phenotypic Criteria Were Performed .Glim And Sga Using The Following Combinations Of One Phenotypic And One Etiologic Criteria -Weight Loss And Low Intake, Low Body Mass Index,Reduce Muscle Mass/Muscle Function And Severe Disease. Since All Patients Had Acute Or Chronic Active Disease And Low Muscle Mass As Per Handgrip Method We Take Them As A Sample For The Glim Criteria. All Nutritional Scores Were Strongly Associated With Malnutrition.

#### Findings / Results

100 Patients (73% Male And 27 % Female) Were Evaluated. In Etiologic Criteria, 100% Fall Under Severe Chronic Disease. As Per Glim Phenotypic Criteria Reduced Muscle Mass Measured By The Handgrip Method Showed A Sensitivity Of 88.8 % Specificity Of 55.4% And Accuracy Of 62%. Cohen'S Kappa Coefficient (K) Showed" Moderate " Agreement Between Glim And Sga( K 0.41),Sensitivity 44 % ,Specificity 92.7 % And Accuracy 84 %,Auc 0.728 Showed As Acceptable. According To Sga 17 % Were Severely Malnourished ,While Glim Criteria Says 55% Were Severely Malnourished.

#### Discussion / Conclusion

100 Patients (73% Male And 27 % Female) Were Evaluated. In Etiologic Criteria, 100% Fall Under Severe Chronic Disease. As Per Glim Phenotypic Criteria Reduced Muscle Mass Measured By The Handgrip Method Showed A Sensitivity Of 88.8 % Specificity Of 55.4% And Accuracy Of 62%. Cohen'S Kappa Coefficient (K) Showed" Moderate " Agreement Between Glim And Sga( K 0.41),Sensitivity 44 % ,Specificity 92.7 % And Accuracy 84 %,Auc 0.728 Showed As Acceptable. According To Sga 17 % Were Severely Malnourished ,While Glim Criteria Says 55% Were Severely Malnourished.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-44

### **TAILORING PARENTERAL NUTRITION FOR ADULTS AT RISK OF REFEEDING SYNDROME: A STRATEGIC APPROACH TO PROFILE PN CONTENT WITH STABILITY EVIDENCE**

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#### **Introduction**

Refeeding Syndrome (Rs) Is A Common Complication Observed In Severely Malnourished Hospitalised Patients After A High-Calorie Feeding Episode. The National Institute For Health And Care Excellence (Nice) Has Recommended Commencing Feeding For Patients At Risk Of Rs With Reduced Calories, 50% Of Total Energy Requirement, Along With Supplementation Of Additional Potassium, Magnesium And Phosphate Doses. The Current Commercial 3-In-1 Parenteral Nutrition (Pn) Bags Available Are Unable To Address These Patients' Requirements, Therefore Necessitating A Specialised Formulation Development Strategy To Minimise Rs Episodes In Pn Patients. Thus, This Study Aims To Develop A Specialised Formulation With Low Calories And Increased Electrolytes Tailored For These Patients.

#### **Materials / Methods**

The Nutrient Requirements Of Patients At Risk Of Rs Were Determined By Referencing Various Nutrition Guidelines And Compared To The Nutrient Contents Of 10 Types Of Registered Commercial Pn Bags In Malaysia. The Selected Bags Had Less Than One-Litre Volume, Which Was The Scope Of This Study. Trends In The Nutrient Content Of These Bags Were Then Analysed By Plotting Each Macronutrient And Electrolyte Component Versus Total Calories, And Simultaneously, The Plots Were Compared With Rs Patients' Requirements. Next, 25 New Formulations Were Proposed, Focusing On Low Volume (600 ml/Day), Reduced Carbohydrate, Increased Protein, And Higher Electrolyte Contents (Potassium, Phosphate And Magnesium) To Tailor To The Requirements Of Patients At Risk Of Rs. Lastly, With Reference To A Compounding Software For Preliminary Stability Profile, 17 Out Of 25 Suggested Formulations Were Predicted To Be Stable, Of Which Two Formulations Were Selected For Further Stability Testing.

#### **Findings / Results**

The Two Proposed Formulations Will Have A Minimum And Maximum Range For Macronutrients Targeting Low Calories And Higher Specific Electrolyte Contents. This Will Cover The Entire Scope Of The Formulation Development Strategy For Stability Testing And Detail The Stability Profile Of The Rs Patients' Formulations.

#### **Discussion / Conclusion**

These Two Formulations Will Undergo Physicochemical And Microbiological Tests In The Laboratory To Determine Their Stability Profiles. Once The Stability Profiles Are Established, These Formulations Will Help Reduce The Complications Of Rs In Pn Patients Who Are At Risk And Improve Treatment Outcomes.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-49

### THE EFFECTIVE OF CHANGING THE TEXTURE OF FOOD FOR PROMOTING BODY WEIGHT OF LOW BMI DYSPHAGIA ELDER

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#### Introduction

Most Of Elderlies Who Lived In Nursing Home Exclude The General Tube-Fed Residents, Are Eating Chopped Porridge. The Snacks Are Mainly Procide Balanced Formula Milk. If The Eating Status Is Not Good, The Elderlies' Weight Will Be Restored After A Period Of Time, And Then Place Nasal Position Will Be Promoted. This Research Plan Was Formulated With The Hope Of Changing Their Dietary Texture, Improving Residents' Dietary Status And Supplying Balanced Natural Foods, And Further Maintaining The Good Health Of The Elderly.

#### Materials / Methods

In This Study, We Collect 25 Elderlies Who Lives In The General Nursing Home Of Hualien Armed Forces General Hospital, Taiwan, Aged Between 65 To 95 Years Old Were Selected As The Study Participants; The Effective Sample Size Was 20. The Study Participants Were On A Single Group, Which Comprised The Status Before And After. We Gave Participants Natural Food With Thickener To Replace Commercially Available Balanced Formula Powder. In Addition, Health Education On Healthy Diets And Safty Of Swallowing Was Provided To The Patients During The Intervention. The Health-Intervention Experiment Was 90 Days Long, We Collect The Participants' Body Weight, Body Fat, Blood Pressure, Blood Lipid, Waist Circumference, And Glu-Ac On The Beginning And 1St Of Every Month, Totally 4 Times. Subsequently, Changes In The Patients' Bmi, Waist Circumference, Body Fat, And Biochemical Data Were Analyzed.

#### Findings / Results

In This Study, We Collect 25 Elderlies Who Lives In The General Nursing Home Of Hualien Armed Forces General Hospital, Taiwan, Aged Between 65 To 95 Years Old Were Selected As The Study Participants; The Effective Sample Size Was 20. The Study Participants Were On A Single Group, Which Comprised The Status Before And After. We Gave Participants Natural Food With Thickener To Replace Commercially Available Balanced Formula Powder. In Addition, Health Education On Healthy Diets And Safty Of Swallowing Was Provided To The Patients During The Intervention. The Health-Intervention Experiment Was 90 Days Long, We Collect The Participants' Body Weight, Body Fat, Blood Pressure, Blood Lipid, Waist Circumference, And Glu-Ac On The Beginning And 1St Of Every Month, Totally 4 Times. Subsequently, Changes In The Patients' Bmi, Waist Circumference, Body Fat, And Biochemical Data Were Analyzed.

#### Discussion / Conclusion

Therefore, This Study Inferred That Changing Texture With Various Food Played A Crucial Role In Increasing The Low Bmi Dysphagia Elderlies' Weight. We Will Feedback The Result To The Institution Food Industry, For Designing Of Dysphagia Elderlies' Dessert In The Future.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-65

### A COMPARITIVE STUDY ON PRE-OPERATIVE CARBOHYDRATE LOADING IN ORTHOPEDIC PATIENTS -ERAS PROTOCOL (2017-2024)

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#### Introduction

Optimal Nutritional State Is Crucial For Successful Operative Outcomes, And Fasting Can Cause Insulin Resistance. The Eras Rule Reduces Complications And Improves Patient Satisfaction, While Carbohydrate Consumption Aids Organ Function. A Carbohydrate Drink 2 Hours Prior Surgery Plays An Important Role In Proper Organ Function And Reducing The Profound Stress Response Post-Surgery. Objective: The Study Aims To Analyze The Impact Of Carbohydrate-Rich Drinks On Preoperative Patients From 2017-2024, Examining Their Biochemical Parameters And Other Factors Contributing To Patient Discomfort.

#### Materials / Methods

A Comparative Interventional Study Was Conducted In 2017 And 2024 Consisted Of 250 Subjects Each (Control-50, Case-200) At Apollo Specialty Hospital In Bangalore. Case Group Subjects Were Given A 200ml Clear-Carbohydrate Drink, 2 Hours Before The Surgery. For The Purpose Of Data Collection The Questionnaire Was Prepared Which Included Anthropometric Measurements, Pre And Post-Operative Biochemical Parameters And Any Further GI Disturbances (Nausea, Vomiting And Loss Of Appetite) Experienced By Patient. Data Was Then Analyzed And Tabulated.

#### Findings / Results

The Evaluation Of Clinical Data In 2017 Before And After The Procedure Shows A Substantial Difference In The Mean Fbs Levels, Which Were 105.82 Mg/dl Before And 99.68 Mg/dl After The Surgery In The Case Group. In 2024, A Comparable Result Was Noted, With Grbs Of The Patients In The Case Group Increasing By Just 15% And In The Control Group By 20%. The Preoperative Drink Continued To Be Deemed Satisfactory By The Majority Of Participants In The Case Group (100%). It Was Also Noted That 3.8% Of Patients In The Case Group Experienced Nausea, Whereas 38.4% Of Patients In The Control Group Experienced The Same. Similarly, 9.5% Of Patients In The Case Group Experienced Appetite Loss, Whereas 24.6% Of Patients In The Control Group Experienced The Same. Additionally, 1.4% Of Patients In The Case Group Experienced Vomiting, Whereas 5.9% In The Control Group. These Findings Reflect The 2017 Comparison Of The Two Groups' Perceptions Of GI Disturbances Which Reveals 96.5% (Control) 85% (Case).

#### Discussion / Conclusion

The Evaluation Of Clinical Data In 2017 Before And After The Procedure Shows A Substantial Difference In The Mean Fbs Levels, Which Were 105.82 Mg/dl Before And 99.68 Mg/dl After The Surgery In The Case Group. In 2024, A Comparable Result Was Noted, With Grbs Of The Patients In The Case Group Increasing By Just 15% And In The Control Group By 20%. The Preoperative Drink Continued To Be Deemed Satisfactory By The Majority Of Participants In The Case Group (100%). It Was Also Noted That 3.8% Of Patients In The Case Group Experienced Nausea, Whereas 38.4% Of Patients In The Control Group Experienced The Same. Similarly, 9.5% Of Patients In The Case Group Experienced Appetite Loss, Whereas 24.6% Of Patients In The Control Group Experienced The Same. Additionally, 1.4% Of Patients In The Case Group Experienced Vomiting, Whereas 5.9% In The Control Group. These Findings Reflect The 2017 Comparison Of The Two Groups' Perceptions Of GI Disturbances Which Reveals 96.5% (Control) 85% (Case).



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-70

### UTILISING DIGITALIZATION FOR TIMELY STANDARDISED NUTRITIONAL SCREENING AND ASSESSMENT IN CARE PROCESS OF IPD PATIENTS IN HOSPITAL SET UP

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*<sup>1</sup>MGM Hospital Vashi*

#### **Introduction**

The Unique Combination Of Technology, Nutritional Information Has Been Utilised To Give Optimum Patient Care In Designated Time. The Food And Nutrition Practitioners. Manage All Information Regarding Their Practice Digitally On Daily Basis.

#### **Materials / Methods**

Nutritional Informatics Is The Effective Retrieval, Organization, Storage, And Optimum Use Of Information, Data And Knowledge. In Software, For Nutritional Screening There Are Initially 4 Questions Which Is Filled By Nursing Staff Within 0-2Hrs On Patient Admission For Filled Screening Forms By Nursing Is Shown In White Colour Digital Capture Of Details (Uhid Number, Ip Number, Patient Full Name, Contact Number, Email Id, Doctor Names, Diagnosis) Of Patients. Get Notifications With Different Colours (Popup). New Admission - Pink Colour, Transfer-Orange Colour, Discharge - Green Colour Also After Providing Discharge Dietary Instructions It Becomes Yellow Colour So That Every Ipd Patients Get Discharged Diet. Followed By Nutritional Assessment, Reassessment With In 24Hrs. We Can Access Reports Any Where From The System In Hospital So It Is Helpful To Online Completion. Diet List Is Also Updated Digitally Which Is Very Helpful For Patient Food Service.

#### **Findings / Results**

100% Compliance Visit By Dietician For All Ipd Patients Including Covid Which Was Daily Kept On Track For Monitoring And Evaluation. Informatics Is Used To Describe How Patient Details, Data Store, Analyze, And Manage Information. It Is Possible To Create Tools That Ensure Timely, Safe, Accurate Transmission Of Information Regarding Nutrition Care. To Provide Optimum Nutrition In Less Time For Welfare Of Patient And Reduce Physical Work Of Dietician.

#### **Discussion / Conclusion**

Technology Is Less Time Consuming For Easy Work Process With Systematic Implementation, Understanding Competencies Necessary For Successful Integration Of Digital Application Of Nutrition Process. Technologies Can Provide Equity Access To Patient Services And Increase digitalization Optimises The Delivery Of Personalised Nutrition Care Through The Standardised Nutritional Care Process Which Is Time Saving Wellbeing And Work Quality Of Dietetics Department.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-77

### UTILITY OF BIOELECTRICAL IMPEDANCE ANALYSIS (BIA) IN ASSESSMENT OF SKELETAL MUSCLE MASS IN PATIENTS UNDERGOING METABOLIC BARIATRIC SURGERY

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#### Introduction

Therapeutic Weight Loss Targeting Excess Fat Inevitably Leads To Loss Of Variable Amounts Of Skeletal Muscle Mass (Smm) For Patients With Sarcopenic Obesity (So) Undergoing Bariatric Surgery. Skeletal Muscle Accounts For 40% Of The Total Body Weight. BIA Can Help In Guiding Nutritional And Rehabilitation Strategies By Providing Information On Fat Mass And Skeletal Muscle Mass Which Can Be Used To Tailor Interventions Aimed At Preserving Muscle Mass And Promoting Fat Loss After Bariatric Surgery.

#### Materials / Methods

An Observational Study Conducted Among Obese Patients Ranging 22 - 56 Years Old Who Underwent Bariatric Surgery In The Past Six Months. Body Mass Index (Bmi), Smm, Body Fat Mass And Percentage Were Evaluated By Means Of BIA. Pearson's Correlation Coefficient (R) Was Calculated To See The Relationship Between These Data.

#### Findings / Results

30 Patients With Bmi >30 Were Recruited. 63% Were Female. Pre Bariatric Surgery Bmi 50.79 9.67Kg/M<sup>2</sup>. Patients' Weight Range From 73.3 -189.3Kg, With A Mean Of 135.34 30.22Kg. The Skeletal Muscle Mass Was 35.84 8.11Kg. The Body Fat Mass Was 70.71 18.74Kg. There Was Significant Positive Correlation Seen Between Weight And Smm (R=0.868, P <0.01). With Increase In Bmi There Is Significant Increase In Body Fat Mass (R=0.9102, P<0.01). There Is A Negative Correlation Seen Between Fat Percentage And Smm Percentage ( R= -0.9734, P<0.01). Thus In Patients With Sarcopenic Obesity, With The Smm Percentage Showing Significant Linear Regression With The Increase In Fat Mass Percentage, It Is Important To Identify Prior Surgery To Manage Sarcopenic Obesity To Ensure Healthy Weight Loss Is Achieved.

#### Discussion / Conclusion

BIA Is A Useful Tool For Assessing Smm In Obese Patients Undergoing Metabolic Bariatric Surgery. It Is Quick, Non-Invasive, And Cost-Effective Which Helps To Optimize Patients Pre And Post Surgery Through A Multidisciplinary Team Approach.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-78

### **TAILORING PARENTERAL NUTRITION FOR ADULTS AT RISK OF REFEEDING SYNDROME: A STRATEGIC APPROACH TO PROFILE PN CONTENT WITH STABILITY EVIDENCE**

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#### **Introduction**

Refeeding Syndrome (Rs) Is A Common Complication Observed In Severely Malnourished Hospitalised Patients After A High-Calorie Feeding Episode. The National Institute For Health And Care Excellence (Nice) Has Recommended Commencing Feeding For Patients At Risk Of Rs With Reduced Calories, 50% Of Total Energy Requirement, Along With Supplementation Of Additional Potassium, Magnesium And Phosphate Doses. The Current Commercial 3-In-1 Parenteral Nutrition (Pn) Bags Available Are Unable To Address These Patients' Requirements, Therefore Necessitating A Specialised Formulation Development Strategy To Minimise Rs Episodes In Pn Patients. Thus, This Study Aims To Develop A Specialised Formulation With Low Calories And Increased Electrolytes Tailored For These Patients.

#### **Materials / Methods**

The Nutrient Requirements Of Patients At Risk Of Rs Were Determined By Referencing Various Nutrition Guidelines And Compared To The Nutrient Contents Of 10 Types Of Registered Commercial Pn Bags In Malaysia. The Selected Bags Had Less Than One-Litre Volume, Which Was The Scope Of This Study. Trends In The Nutrient Content Of These Bags Were Then Analysed By Plotting Each Macronutrient And Electrolyte Component Versus Total Calories, And Simultaneously, The Plots Were Compared With Rs Patients' Requirements. Next, 25 New Formulations Were Proposed, Focusing On Low Volume (600 ml/Day), Reduced Carbohydrate, Increased Protein, And Higher Electrolyte Contents (Potassium, Phosphate And Magnesium) To Tailor To The Requirements Of Patients At Risk Of Rs. Lastly, With Reference To A Compounding Software For Preliminary Stability Profile, 17 Out Of 25 Suggested Formulations Were Predicted To Be Stable, Of Which Two Formulations Were Selected For Further Stability Testing.

#### **Findings / Results**

The Two Proposed Formulations Will Have A Minimum And Maximum Range For Macronutrients Targeting Low Calories And Higher Specific Electrolyte Contents. This Will Cover The Entire Scope Of The Formulation Development Strategy For Stability Testing And Detail The Stability Profile Of The Rs Patients' Formulations.

#### **Discussion / Conclusion**

These Two Formulations Will Undergo Physicochemical And Microbiological Tests In The Laboratory To Determine Their Stability Profiles. Once The Stability Profiles Are Established, These Formulations Will Help Reduce The Complications Of Rs In Pn Patients Who Are At Risk And Improve Treatment Outcomes.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-82

### EFFECT OF EXERCISE PREHABILITATION ON FUNCTIONAL PERFORMANCE IN PATIENTS AWAITING FOR CARDIOTHORACIC SURGERY. A FEASIBILITY PILOT RCT

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<sup>4</sup>Heart and Lung Centre, Hospital Canselor Tuanku Muhriz

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#### Introduction

Graduated Exercise-Based Prehabilitation Are Associated With Substantial Health Benefits In The Preoperative Period For People Schedule For Cardiothoracic Surgery. This Study Aimed To Investigate The Feasibility And Potential Effect Of Graduated Exercise-Based Prehabilitation On Functional Performances In Patients Awaiting For Cardiothoracic Surgery.

#### Materials / Methods

This Study Is A Pilot Phase Ii Prospective, Double-Blinded Randomized Controlled Trial And Intention To Treat Analysis. Participants Were Randomly Allocated To One Of Two Groups Days 4 Week Before Surgery. The Primary Outcome Is Feasibility Defined As Recruitment And Adherence In The Intervention Group. Participants Completed The Secondary Outcomes For Exercise Capacity (6-Minute Walking Distance) And Upper Limb Function Using Unsupported Upper Limb Test (Uulex), And Functional Difficulties Questionnaire (Fdq-S) At Baseline (4-Week Post-Intervention Pre-Operatively) And Prior To Discharge (7 Days Post-Operatively).

#### Findings / Results

20 Participants Were Randomly Recruited(10 Per Group) With No Report Of Post Op Pulmonary Complications During Post-Operative Periods. There Were Statistically Significant Differences Between Group Differences On Uulex Duration (P=0.019) And 6-Minute Walking Distance (P=0.001) At Pre-Operatively. At Post-Operatively, Significant Difference Between Groups Was Found With Fdq-S(P=0.010). Within Group Difference For Uulex Duration In Prehabilitation Group Declined Significantly Over Time, While Both Groups Were Found Significant Declined In Walking Distance Over Time (P<0.05). For Fdq-S, Prehabilitation Group Significantly Improve Over Time, Whereas Standard Care Significantly Increased In Difficulty Over Time (P<0.05).

#### Discussion / Conclusion

The Results Exhibited UI Activities And Resistance Training Exercises Can Commence Pre-Operatively. The Result Suggests That Exercise-Based Prehabilitation Is Feasible To Be Conducted And Effective In Improving Functional Performance And Upper Limbs Function In Patients Following Cardiothoracic Surgery With No Reported Of Post-Op Pulmonary Complications.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-83

### EFFECT OF GRADUATED EXERCISE BASED PREHABILITATION VERSUS STANDARD CARE ON PSYCHOLOGICAL RECOVERY AND HEALTH-RELATED QUALITY OF LIFE IN PATIENTS AWAITING FOR CARDIOTHORACIC SURGERY- A PILOT RCT

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Zamsuril Lok<sup>3</sup>, Hazwan Ab Rahim<sup>3</sup>, Nor Azura Azmi<sup>5</sup>

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#### Introduction

Cardiothoracic Surgery Often Presents Significant Psychological And Health-Related Quality Of Life(Hrql) Challenges For Patients, However An Understanding Of Psychological Recovery And Quality Of Life Are Lacking Following Pre-Habilitation In Patients Awaiting For Cardiothoracic Surgery. This Study Aimed To Investigate The Psychological Recovery And Hrql Recovery In Patients Undergoing Graduated Exercise-Based Pre-Habilitation While Awaiting Cardiothoracic Surgery.

#### Materials / Methods

This Study Is A Pilot Phase Ii Prospective, Double-Blinded Randomized Controlled Trial And Intention To Treat Analysis. Participants Were Randomly Allocated To One Of Two Groups Days 4 Week Before Surgery. Eligible Preoperative Cardiothoracic Surgery Patients Were Randomized 1:1 Ratio To Either Intervention Group Or Standard Care Group. Specifically, Pre-Habilitation(Intervention) Group Received 60 Minutes Of Moderate To High-Intensity Supervised Exercise Program Twice Weekly For Four Weeks Including Home Exercise Program And Inspiratory Muscle Training, While Standard Care Group Received A Routine Preoperative Care. The Level Of Anxiety And Depression Was Measured Using The Hospital Anxiety And Depression Scale (Hads) And Hrql Measured By The Euroqol Eq-5D-5DI At Baseline, One Week Preoperatively, And Prior To Discharge Post-Operatively.

#### Findings / Results

We Found Statistically Differences Between Group On Hrql At Pre-Operatively ( $P=0.02$ ) And Hospital Anxiety And Depression At Post-Operatively Prior To Discharge ( $P<0.01$ ) With No Report Of Post Op Pulmonary Complications During Early Post-Operative Periods Priot To Discharge. Within Group Difference For Hospital Anxiety And Depression Level In Standard Care Group Increased Significantly ( $P=0.01$ ), Whereas In Both Groups Declined Significantly In Hrql Over Time ( $P=0.01$ ) Consistent With The Effect Of Surgery Post-Op.

#### Discussion / Conclusion

Graduated Exercise-Based Prehabilitation Has Potential Benefit In Improving Psychological And Hrql Of Patients Waiting For Elective Cardiothoracic Surgery. This Protocol Can Serve As A Guideline For Standard Prehabilitation Setting In Improving Patient Experience In Navigating Surgery Process At The Hospital.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-93

### SERIAL ALBUMIN MEASUREMENT AS A PREDICTOR OF 30-DAY MORTALITY IN ICU PATIENTS WITH SEPSIS

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#### Introduction

Refeeding Syndrome (Rs) Is A Common Complication Observed In Severely Malnourished Hospitalised Patients After A High-Calorie Feeding Episode. The National Institute For Health And Care Excellence (Nice) Has Recommended Commencing Feeding For Patients At Risk Of Rs With Reduced Calories, 50% Of Total Energy Requirement, Along With Supplementation Of Additional Potassium, Magnesium And Phosphate Doses. The Current Commercial 3-In-1 Parenteral Nutrition (Pn) Bags Available Are Unable To Address These Patients' Requirements, Therefore Necessitating A Specialised Formulation Development Strategy To Minimise Rs Episodes In Pn Patients. Thus, This Study Aims To Develop A Specialised Formulation With Low Calories And Increased Electrolytes Tailored For These Patients.

#### Materials / Methods

The Nutrient Requirements Of Patients At Risk Of Rs Were Determined By Referencing Various Nutrition Guidelines And Compared To The Nutrient Contents Of 10 Types Of Registered Commercial Pn Bags In Malaysia. The Selected Bags Had Less Than One-Litre Volume, Which Was The Scope Of This Study. Trends In The Nutrient Content Of These Bags Were Then Analysed By Plotting Each Macronutrient And Electrolyte Component Versus Total Calories, And Simultaneously, The Plots Were Compared With Rs Patients' Requirements. Next, 25 New Formulations Were Proposed, Focusing On Low Volume (600 ml/Day), Reduced Carbohydrate, Increased Protein, And Higher Electrolyte Contents (Potassium, Phosphate And Magnesium) To Tailor To The Requirements Of Patients At Risk Of Rs. Lastly, With Reference To A Compounding Software For Preliminary Stability Profile, 17 Out Of 25 Suggested Formulations Were Predicted To Be Stable, Of Which Two Formulations Were Selected For Further Stability Testing.

#### Findings / Results

The Two Proposed Formulations Will Have A Minimum And Maximum Range For Macronutrients Targeting Low Calories And Higher Specific Electrolyte Contents. This Will Cover The Entire Scope Of The Formulation Development Strategy For Stability Testing And Detail The Stability Profile Of The Rs Patients' Formulations.

#### Discussion / Conclusion

These Two Formulations Will Undergo Physicochemical And Microbiological Tests In The Laboratory To Determine Their Stability Profiles. Once The Stability Profiles Are Established, These Formulations Will Help Reduce The Complications Of Rs In Pn Patients Who Are At Risk And Improve Treatment Outcomes.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-94

### BUDGET FRIENDLY FAT SCALE – COMPARING THE RELIABILITY OF DIFFERENT COMMERCIALY AVAILABLE BIOIMPEDANCE ANALYSIS SCALES

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#### Introduction

Inbody 770(Scalea) A Bioimpedance Analysis(Bia) Scale Has Been Validated Against Gold Standards Dual-Energy X-Ray Absorptiometry In Measurement Of Body Fat Percent(Bf%), Body Fat Mass (Fm), Fat-Free Mass(Ffm) And Skeletal Muscle Mass(Smm). However, This Scale Comes With A High Setup Cost Which Post A Challenge For A Modest Hospital. Several Budget Friendly Bia Scales Such As Omron Hbf-375(Scaleb) And Huawei Scale3Pro(Scalec) Are Available However It'S Not Validated. This Study Aims To Compare The Reliability Of This Scales For Use In A Modest Hospital By Comparing It With Scalea.

#### Materials / Methods

Healthy Individuals Who Consented To The Study Protocol Were Recruited. Data On Their Height (Ht), Age And Sex Were Collected. They Were Measured On All 3 Scales Recording Their Weight(Wt), Bf% And Smm. Body Mass Index (Bmi), Fm And Ffm Was Derived From Wt, Ht And Bf%. Premeasurement Protocols Were As Recommended By Scalea. Measurements Was Done In The Same Setting While Standing With Arm Apart Ensuring No Contact Of The Upper Limbs With The Trunk And Lower Limbs With Each Other. Statistical Analysis Was Done With Intraclass Correlation Coefficient (Icc) To Determine The Reliability Of The Scales. Spssv20 Was Used.

#### Findings / Results

A Total Of 40 (Male=20, Female=20) Healthy Individuals Was Measured. Mean Age And Height Was 33.2±6.8Years-Old And 164.1±9.0Cm Respectively. Mean For Scalea Wt, Bf% And Smm Was 64.28(12.83)Kg, 28.64(10.43)% And 25.14(6.63)Kg Respectively. Icc Showed That Reliability Was Excellent For Weight In Both The Scales With 1.000. Bf%, Has Good Reliability In Scaleb With Icc Of 0.878 And Excellent In Scalec With Icc Of 0.953. Both Scaleb And Scalec Reliability For Smm Was Excellent With Icc Of 0.947 And 0.975 Respectively.

#### Discussion / Conclusion

From This Study, Scaleb And Scalec Shows Good To Excellent Reliability As Compared To Scalea. These Scales Can Be Used As An Alternative In Situations Where Scalea Is Unavailable. In Addition, For Patient Who Requires Prehabilitation, These Scales Can Be Used In A Home Setting.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-95

### ASSOCIATION OF MUSCLE MASS AND MUSCLE STRENGTH WITH THE PHYSICAL ACTIVITY AND DIETARY INTAKE OF HEALTHY FILIPINO ADULTS: A CROSS-SECTIONAL STUDY

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#### Introduction

Muscle Mass And Strength Decline With Age And Are Influenced By Sex, Race, And Ethnicity. However, Data From Developing Countries, Especially The Philippines, Are Limited, Resulting In Gaps In Understanding Muscle Mass And Strength Variations Among Filipinos. This Study Aimed To Assess Muscle Mass And Strength In Healthy Filipino Adults Aged 20-59 Years.

#### Materials / Methods

This Cross-Sectional Study Recruited 240 Employees Aged 20-59 Years. Muscle Mass Was Evaluated Using Mid-Upper Arm Circumference (Muac) And Calf Circumference (Cc), While Muscle Strength Was Measured By Handgrip Strength (Hgs). Participants Were Selected Through Stratified Random Sampling (A=0.05; B=0.2; 80% Statistical Power; Effect Size Of 0.786; And 10% Dropout Rate). The Shapiro-Wilk Test Assessed Normality, And The Kruskal-Wallis And Mann-Whitney U Tests Were Used For Age And Sex Comparisons. Spearman Rho Correlation Analyzed Relationships Between Physical Activity (Met-Min/Week), Dietary Intake (Protein And Calories), And Muscle Mass And Strength Metrics.

#### Findings / Results

The Study Comprised Of Healthy Males (N=120) And Females (N=120) With Normal Bmi ( $21.53 \pm 1.52 - 23.32 \pm 1.7$  Kg/M<sup>2</sup>) Across Age And Sex Groups, And No Known Comorbidities. Males Had Higher Caloric And Protein Intake And Physical Activity Levels Than Females, With Differences Of 499 Kcal/Day (P<.001), 16.2 G Of Protein/Day (P<.001), And 960 Met-Min/Week (P=.008), Respectively. The Median Muac Was 27.5 Cm (Iqr=3), Cc Was 34 Cm (Iqr=3.55), And Hgs Was 33 Kg (Iqr=19). Significant Differences In Hgs Were Observed By Age (P=.001) And Sex (P<.001), With Females Exhibiting Only 57% Of The Grip Strength Of Their Male Counterparts. Both Sexes Peaked In Hgs At 40-49 Years Old. Protein And Caloric Intake Showed A Significant Association With Hgs (Rs(151) = 0.31, P<.001), While Physical Activity Did Not Influence Hgs (Rs(146)=0.14, P=.089).

#### Discussion / Conclusion

The Study Showed Significant Differences In Handgrip Strength By Age And Sex, With Females Demonstrating Lower Strength Compared To Males. Protein And Caloric Intake Were Associated With Handgrip Strength, But Not Physical Activity. Males Had Higher Dietary Intake Levels Than Females, Suggesting The Role Of Dietary Intake In Muscle Strength Among Filipino Adults. Future Studies Should Investigate The Causal Relationship And Possible Mediators Between Dietary Intake And Muscle Strength.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-104

### ASSOCIATION BETWEEN EARLY ENTERAL NUTRITION (WITHIN 12 HOURS) AND CLINICAL OUTCOMES IN CRITICALLY ILL OBESE INDIAN PATIENTS: AN OBSERVATIONAL STUDY

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#### Introduction

Guidelines For The Critically Ill Obese (Cio) Recommend Nutrition Support Within 24-48 Hours Of Icu Admission, But Few Studies Have Reported The Effect Of Early Enteral Nutrition (En) In This Population. This Study Evaluated The Effect Of Initiating En Within 12 Hours Of Icu Admission On Clinical Outcomes In Cio Indian Patients.

#### Materials / Methods

This Prospective, Observational Study, Included 140 Critically Ill Obese Patients (Who-Asian Bmi Classification), Intubated Within 48 Hours Of Admission, Initiated On En, And Having A Minimum 3-Day Icu Stay. Patients Who Received En Within 12 Hours Of Admission (Een, N=71) Were Compared With Patients Initiated On En After 12 Hours (Len, N=69). The En Protocol Was: Bmi 25-29.9Kg/M<sup>2</sup> = 20 - 25Calories/Kg Actual Body Weight (Abw), Bmi  $\geq$ 30 Kg/M<sup>2</sup> = 15 - 20Calories/Kg Abw And 1.5G Proteins/Kg Ideal Body Weight For All Patients. Results Of Interest Included Target Calories And Proteins Achieved On Day 3, As Well As Total Calories And Proteins Provided. Primary Outcomes Were Mechanical Ventilation (Mv) Days, Icu Length Of Stay (Los), Hospital Los And Mortality. Data Were Analyzed Using Descriptive Statistics, Independent Samples T-Test And Mann-Whitney U Test In Spss 21.

#### Findings / Results

Een Group Was Significantly Older ( $61.4 \pm 13.4$ Y Een Vs  $53.2 \pm 14.6$ Y Len;  $P=0.001$ ), But There Was No Difference In Mean Bmi ( $28.5 \pm 3.6$  Een Vs  $28 \pm 3.6$  Len;  $P= 0.262$ ), Nutric Scores ( $4.9 \pm 1.8$  Een Vs  $4.3 \pm 2$  Len;  $P= 0.081$ ) And Multimorbidity (39% Een Vs 35% Len;  $P=0.618$ ). Een Group Received Higher Target Calories (84% Een Vs 78% Len;  $P=0.05$ ), And Proteins (79% Een Vs 72% Len;  $P=0.05$ ) On Day 3, Whereas Total Target Calories (89% Een Vs 90% Len;  $P= 0.395$ ) And Proteins (87% Een Vs 88% Len;  $P= 0.721$ ) Delivered Were Similar. Een Group Required Fewer Mv Days ( $6.5 \pm 3.5$ D Een Vs  $9 \pm 6.1$ D Len;  $P= 0.024$ ), Los Icu ( $10 \pm 3.5$ D Een Vs  $14.2 \pm 9$ D Len;  $P=0.009$ ) And Los Hospital ( $15.2 \pm 8.1$ D Een Vs  $24.9 \pm 12.5$ D Len;  $P= <0.001$ ). No Difference In Mortality Was Observed (18% Een Vs 16% Len;  $P= 0.71$ ).

#### Discussion / Conclusion

In Cio Indian Patients, En Initiation Within 12 Hours Of Icu Admission Is Associated With Shorter Mv Days, Icu Los, And Hospital Los, However, There Is No Effect On Mortality.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-105

### ANALYSIS OF THE IMPACT OF NUTRITIONAL STATUS AND ADEQUACY OF ENTERAL NUTRITION SUPPORT IN THE CLINICAL OUTCOMES OF CRITICALLY ILL PATIENTS

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Anitha Kumari R U<sup>1</sup>, Priya E<sup>1</sup>, Lasya Priya<sup>1</sup>, Rajalakshmi P<sup>1</sup>*

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#### Introduction

Assessment Of Nutritional Status And Adequate Enteral Nutrition Support (Ens) Are Crucial In Critically Ill Patients To Prevent Complications. This Study Aimed To Analyze The Impact Of Nutritional Status And The Adequacy Of Nutritional Support On The Outcomes Of Critically Ill Patients.

#### Materials / Methods

Consecutive Patients Who Received Ens For At Least 3Days In The Icu Of A Tertiary Care Hospital Between January'21 And April'24 Were Included. Patients' Demographics, Clinical And Nutritional Data (Charlson Comorbidity Index (Cci), Modified Subjective Global Assessment (Msga), Controlling Nutritional Status (Conut) Score, Details Of Ens), Were Extracted From Emr Retrospectively. Data Was Analyzed Using Spss Version 20.0.

#### Findings / Results

Out Of Consecutive 1504 Patients, 67.7% Were Men And 32.3% Women With Mean Age Of 63.02±16.68Y. According To Cci, 37.9% Had 0% 10-Year Survival Rate. Mean Length Of Hospital Stay (Los) Was 20.46±19.6. The Mortality And 60-Day Re-Admission Rates Were 20.1% And 17.3% Respectively. Baseline Msga Showed That 44.2% Were Malnourished, Whereas Conut Indicated 90.7% Were Malnourished (Mild: 34.7%, Moderate: 41.3%, Severe: 14.7%). The Mean Prescribed And Actual Provision Of Calories Were 1,698 Versus 1,341 Calories, And Protein Was 82 Versus 67 Grams, Respectively. Severity Of Malnutrition As Per Conut Significantly Increased Los (P=0.005). Achieving Calorie Targets (≥80%) By Day 3 Improved Both Los And 60-Day Re-Admission (P<0.05). Increased Scores Of Cci, Conut, Msga, And Average Calorie Inadequacy (<75%) Were Associated With Higher Mortality Rates (P<0.001). Malnutrition Assessed By Msga Predicted Frequent Hospitalizations (P=0.026). Even Patients Well-Nourished According To Msga Had Higher Mortality If Conut Indicated Severe Malnutrition (P<0.001). Targeted Ens In The Initial Phase Decreased Re-Admission Rates By Minimizing Cumulative Calorie Deficits (P<0.05). Malnourished Patients Who Achieved Calorie Targets Significantly Improved Mortality (P=0.006). Achievers Of Calorie Targets Also Had Fewer Re-Admissions Due To Infections (P=0.012), While Non-Achievers Experienced Frequent Hospitalizations Due To Nutritional Deterioration. Logistic Regression Analysis Indicated That The Conut Score Independently Predicted A 5.8-Fold Increase In Mortality And A 1.8-Fold Increase In Re-Admission Rates. Achieving Calorie Targets Reduced Mortality Risk By 1.44 Times.

#### Discussion / Conclusion

Analyzing The Degree Of Malnutrition Using The Conut Score Is Crucial In Critical Care Settings, And Early Targeted Ens Helped Improve Mortality And Re-Admission Rates.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-106

### FEASIBILITY OF IMPROVING CLINICAL OUTCOMES OF CRITICALLY ILL OBESE INDIAN PATIENTS BY USING AN INDIVIDUALIZED HYPOCALORIC, HIGH PROTEIN ENTERAL NUTRITION PROTOCOL - A PILOT STUDY.

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#### Introduction

Clinical Nutrition Practice Guidelines For Critically Ill Obese (Cio) Patients Are Primarily Based On Expert Consensus And Limited Evidence From General Icus, Warranting Prospective Studies With Individualized Nutrition Protocols. This Pilot Study Evaluated The Effect Of Implementing An Individualized Hypocaloric, High Protein (Hypocalorichp) Enteral Nutrition (En) Protocol On Clinical Outcomes In Cio Indian Patients.

#### Materials / Methods

Retrospective And Prospective Data Of 104 Cio Patients (Who Asian Bmi Classification), Mechanically Ventilated Within 48 Hours And On En For Minimum Of 3 Days Were Compared. The Pre-Implementation En Protocol (N=52) Provided 25 - 30Calories/Kg Adjusted Body Weight And 1.2 - 1.3G Proteins/Kg Ideal Body Weight (Ibw) For All Patients. The Hypocalorichp En Protocol (N=52) Included En Initiation Within 48Hours, Bmi 25-29.9Kg/M<sup>2</sup> = 20 - 25Calories/Kg Actual Body Weight (Abw), Bmi ≥30 Kg/M<sup>2</sup> = 15 - 20Calories/Kg Abw, 1.5G Proteins/Kg Ibw For All Patients, A High Protein En Formula And Multidisciplinary Team Education. Baseline Demographics, Nutritional Status Data (Assessment Tool - Modified Subjective Global Assessment) And En Practice Parameters Were Collected And Analyzed. Primary Endpoints Were Mechanical Ventilation (Mv) Days, Icu/Hospital Length Of Stay (Los) And Secondary Endpoint Was In Hospital Mortality. Data Were Analyzed Using Descriptive Statistics, Independent Samples T-Test, Mann-Whitney U Test And Chi Square Tests In Spss 21.

#### Findings / Results

No Significant Differences Were Observed In Mean Age (56±13.1Y Pre- Vs 58.8±14.6Y Post-; P=0.256), Bmi (28.3±3.3 Pre- Vs 28±3.3 Post-; P=0.443) And En Initiation Time (23.9±35.6H Pre- Vs 16.5±14.6H Post-; P=0.802). The Post-Implementation Group Was Significantly Malnourished (42% Pre- Vs 65% Post-; P=0.018). Hypocalorichp Group Received Significantly Higher Target Calories (65% Pre- Vs 94% Post-; P=<0.001) And Proteins (63% Pre- Vs 80% Post-; P=<0.001). The Hypocalorichp En Protocol Significantly Reduced Mv Days (9.5±5.4D Pre- Vs 6.8±4.3D Post-; P=0.001), Icu Los (15.5±8D Pre- Vs 9.7±3.6D Post-; P=<0.001) And Hospital Los (20.4±10.8D Pre- Vs 14.9±6.6D Post-; P=0.008). In-Hospital Mortality Was Lesser In Hypocalorichp Group But Lacked Statistical Significance (29% Pre- Vs 13% Post-; P=0.056).

#### Discussion / Conclusion

Implementation Of The Hypocaloric, High Protein En Protocol Helped Achieve Higher Energy And Protein Targets And Significantly Improved Clinical Outcomes In Critically Ill Obese Indian Patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-108

### EVALUATING THE EFFICACY OF ORAL NUTRITIONAL SUPPLEMENTATION ON CLINICAL OUTCOMES USING HAND GRIP STRENGTH COMPARED TO SUBJECTIVE ASSESSMENTS

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#### Introduction

Hand Grip Strength (Hgs) Is A Fundamental Metric For Assessing Muscle Function And Overall Physical Capability. Weaker Hgs Is Associated With Sarcopenia Increasing Hospitalization, Mortality, And Poor Quality Of Life. This Study Aimed To Evaluate The Efficacy Of Oral Nutritional Supplementation (Ons) On Clinical Outcomes Using Hgs Compared To Subjective Assessments.

#### Materials / Methods

A Prospective Study Was Conducted In A Tertiary Care Hospital Between May'24 And July'24. Patients With Weaker Hgs And Malnourished As Per Modified Subjective Global Assessment (Msga) Were Prescribed Ons. Patients' Demographics, Nutritional Status On Admission And Discharge Using Msga, Global Leadership Initiative On Malnutrition (Glim), Malnutrition Universal Screening Tool (Must), Hgs, Sarc-F (Strength, Assistance In Walking, Rise From A Chair, Climb Stairs, And Falls), Controlling Nutritional Status (Conut) Score And Details Of Criticality (Charlson Comorbidity Index (Cci)) And Clinical Outcomes Were Recorded. Data Were Analyzed Using Spss Version 20.0.

#### Findings / Results

Out Of Consecutive 354 Non-Critical Patients, 61.9% Were Men And 38.1% Women With Mean Age Of 51.01± 16.08Y. The Baseline Assessment Indicated 16.1% As Malnourished As Per Msga, Must (24.3%), Glim (20.3%), Sarc-F (19.5%) At Risk Of Sarcopenia Whereas Conut Predicted 60.7% As Malnourished (Mild-42.9%, Moderate-15.8% And Severe-2%). According To Msga, 17.8% Experienced Weight Loss And Hgs Showed 22% Had Weaker Muscle Strength. The Average Length Of Hospital Stay (Los) And Mortality Were 4.99±4.061 And 0.3% Respectively. Majority (71.7%) Had 100% Ons Compliance. According To Cci, 11.5% Had 0% 10-Year Survival Rate Which Significantly Increased Los (P=0.002). The Assessment Tools Like Hgs, Glim (Objective Component), And Sarc-F Significantly Predicted Higher Los (P<0.001) When Compared To Conut, Must, And Msga. Irrespective Of The Severity Of Malnutrition And Disease, Ons Delivery And Better Compliance Rate Were Feasible (P<0.001). Regression Analysis Indicated That Hgs (22%) Precedes Msga (16%) In Predicting Appropriate Nutritional Diagnosis (P<0.001). There Was No Significant Difference In Los Observed Among Different Categories Of Final Hgs (P=0.255) And Msga (P=0.402), Which Proves Timely Ons Had An Impact On Los.

#### Discussion / Conclusion

Hgs Provides A Reliable And Objective Measure As A New Vital Sign For Assessing Nutritional Status, Making It An Essential Tool In Clinical Settings, For Timely Nutritional Interventions, Which Are Crucial For Improving Clinical Outcomes.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-109

### ASSESSMENT OF SARCOPENIA AND MALNUTRITION IN HOSPITALIZED NON-CRITICALLY ILL PATIENTS USING MULTIVARIATE ASSESSMENT TOOLS: A MULTICENTRIC STUDY

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#### Introduction

Data On The Prevalence Of Malnutrition Especially Sarcopenia In Indian Hospitalized Patients Is Scarce. This Study Aims To Investigate The Use Of Multivariate Assessment Tools To Diagnose Sarcopenia And Malnutrition On Admission And Understand The Feasibility Of Routine Clinical Practice.

#### Materials / Methods

A Prospective Study Involving Non-Critically Ill Hospitalized Patients From Five Centers Of Our Group Hospitals Was Conducted Between 16<sup>th</sup> March And 30<sup>th</sup> March 2024. The Sarcopenia Assessment Using Handgrip Strength (Hgs), Sarc-F Questionnaire, Calf Circumference (Cc), And Malnutrition Diagnoses According To Modified Subjective Global Assessment (Msga), The Global Leadership Initiative On Malnutrition (Glim) Criteria With Hgs, Malnutrition Universal Screening Tool (Must) Were Performed Within 24 H Of Admission And Charlson Comorbidity Index (Cci) Was Calculated. All Statistical Analyses Were Performed Using Spss (Ibm, 28.0).

#### Findings / Results

A Total Of 1004 Patients, Aged 53.06±15.69 (Range 18-90); 59.6% Male And 40.4% Female Were Included. The Mean Cci Score Was 3.28±2.32 With An Average 10-Year Survival Of 60.7% And 57.6% Polymorbid. The Mean Body Mass Index (Bmi) Was 26.2±5.18 And Predominantly Overweight (19.9%) And Obese (55.3%). The Mean Hgs Was 22.9±9.76 And Majority (68.2%) Had Weak Muscle Strength. The Mean Cc Was 33.3±4.72 And Moderate (11.9%) And Severe (71.9%) Sarcopenia Was Indicated. Sarc-F Indicated 21.4% At Risk Of Sarcopenia. According To Glim 16.3% Was Malnourished; Must Rated 19.5% At High Risk Of Malnutrition; 17.4% Was Malnourished With Msga. According To Must, The Low Risk (15%) Of Malnutrition; Msga Rated 14% Of Well Nourished; Glim Rated No Risk (16%) Had A Significantly High Risk Of Sarcopenia As Per Sarc-F And The Risk Of Sarcopenia Increased With Deteriorating Nutritional Status (P<0.001). Oncology And General Medicine Patients Were At Higher Risk Of Malnutrition As Per Must, Msga And Glim (P<0.001). High Risk Of Sarcopenia Was Observed In General Medicine, Orthopedics Followed By Oncology As Per Sarc-F (P<0.001). The Prevalence Of Sarcopenia Was Inversely Correlated With Bmi (P<0.001). Must Rated High Risk Patients Had The Cci Survival Rate Of 45% Compared To Low Risk (64%) (P<0.001). Glim Indicated Severe Risk Patients Had The Cci Survival Rate Of 39% Compared To No Risk Category (65%) (P<0.001). The Step-Wise Logistic Regression Analysis Of All The Significant Assessment Tools Like Glim, Hgs, And Cc Indicated That Glim Is The Only Tool To Predict Malnutrition And Sarcopenia In Non-Critically Ill Patients On Admission With Significance At Every Step Throughout The Analysis With An Odds Ratio Of 6.406.

#### Discussion / Conclusion

Malnutrition And Sarcopenia Are Prevalent But Vary Depending On The Assessment Tool Used. Glim Is Feasible In Routine Clinical Practice, To Predict Malnutrition And Sarcopenia In Non-Critically Ill Patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

# Poster Abstracts

**ID: PENSA-03**

SHORT-TERM PREHABILITATION PROMOTE WEIGHT LOSS AND PRESERVE MUSCLE MASS BEFORE BARIATRIC SURGERY

*Ho C.Y.\*, Siti Nuraini M.S., Zuliehaiza K., Norshariza J., Adibah A.A.*

**ID: PENSA-13**

MANAGING HOME PARENTERAL NUTRITION DURING PREGNANCY IN PATIENT WITH SHORT BOWEL SYNDROME: A SUCCESSFUL EXPERIENCE IN SABAH, MALAYSIA

*Fong P.W.F., Bangguan S.C.J., Hwang K.Y., Seenivasagam S., Sriram R.K., Chong K.Y.*

**ID: PENSA-14**

PERSONALIZED HOME MEDICAL NUTRITION THERAPY IN CANCER CACHEXIA PATIENT WITH LARYNGEAL CANCER: A CASE REPORT

*Rahmita K.S., Sunardi D., Andayani DE., Sutanto K.*

**ID: PENSA-22**

EFFECTIVENESS OF ASSESSING ADDUCTOR POLLICIS MUSCLE AS INDICATOR FOR SARCOPENIA IN CRITICALLY ILL EMERGENCY PATIENTS

*Seo-rin Doo., Yeon-hee Lee., Ji-hyun Lee., Young-gi Min.*

**ID: PENSA-25**

COMPARATIVE EVALUATION OF DIAGNOSTIC ACCURACY AND MALNUTRITION PREVALENCE: GLIM CRITERIA VS. SUBJECTIVE GLOBAL ASSESSMENT

*Bhakti Samant, Neha Sanwalka, Fiona Sampat, Nitika Malani, Tanvi Patankar, Veerti Gada, Harakh Baxi*

**ID: PENSA-43**

CASE REPORT AND LITERATURE REVIEW: KETOGENIC DIET IN AN ADULT WITH SUPRA-REFRACTORY STATUS EPILEPTICUS FROM ANTI-LGI1 ENCEPHALITIS

*Suwannakarn M, Thitseeaeng T, Thawiang K*

**ID: PENSA-52**

CURRENT STATUS AND CHALLENGES OF ENTERAL NUTRITION DURING DISASTERS IN JAPAN

*Keiko Sekido., Chiharu Kitade., Yuri Ouchi., Satomi Nasu.*

**ID: PENSA-55**

PREVALENCE AND CLINICAL IMPACT OF VITAMIN D DEFICIENCY IN CRITICALLY ILL KOREAN PATIENTS WITH TRAUMATIC INJURIES: A SINGLE-CENTER, PROSPECTIVE, OBSERVATIONAL STUDY

*Sung Hoon Cho, Kyoung Hoon Lim*

**ID: PENSA-56**

INTEGRATING NUTRITIONAL SUPPORT IN PALLIATIVE CARE FOR MALE BREAST CANCER: A CASE REPORT

*Lim C.C., Krystal Ng L.S., and Nurunnajmi*

**ID: PENSA-121**

EFFECTIVENESS OF MICRONUTRIENT-RICH MULTI-SEED POWDER IN REVERSING POLYCYSTIC OVARIAN SYNDROME (PCOS) AMONG WOMEN OF REPRODUCTIVE AGE (20-45 YEARS)

*Jyothi S Krishnaz, Sangeetha Merrin Varghese, Thirumanidevi A*

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EFFECTS OF FISH OIL SUPPLEMENTATION ON BIOCHEMICAL PROFILE OF OBESE CHILDREN: A RANDOMISED CONTROL TRIAL

*Nor Baizura M.Y., Zallilah M.S., Hwu T.T., Ruzita A.T. and Nicola S.*

**ID: PENSA-02**

USABILITY EVALUATION OF INTERNATIONAL PROPOSED STA

*Michio Maruyama, Naoharu Mori, Jun Kayashita, Shigeru Takamizawa, Seiji Watanabe, Tetsuya Takamasu*

## RESTORING & REDEFINING CLINICAL NUTRITION

**ID: PENSA-04**

MALNUTRITION AND ASSOCIATED RISK FACTORS IN NEWLY DIAGNOSED UPPER GASTROINTESTINAL CANCER BEFORE TREATMENT

*Ho C.Y.\*, Zuliehaiza K.*

**ID: PENSA-09**

THE ASSOCIATION OF OBESITY AND BODY FAT MASS WITH BONE MINERAL CONTENT IN THE IRANIAN GENERAL POPULATION DURING THE YEARS 2020-2023

*Mehdizadeh A, Basham A, Evazi E, Ghanipoor M, Hosseini Teshnizi S, Salehi Z, Mousavi Sani A, Razmpour F*

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IMPACT OF A MULTIDISCIPLINARY WARD-BASED INTERVENTION ON NUTRITION CARE FOR HOSPITAL PATIENTS

*Naoki Hashizume., Natsumi Maruyama., Ayu Nagamatsu., Mayumi Ikeda., Risa Takayanagai., Naruki Higashidate., Saki Sakamoto., Shiori Tsuruhisa., Nobuya Ishibashi., Takumi Kawaguchi., Tatsuru Kaji.*

**ID: PENSA-11**

EXPLORING THE NUTRITIONAL STATUS CHANGES AND PROGNOSIS OF THE RESPIRATORY INTENSIVE CARE UNIT PATIENTS ONE WEEK AFTER ADMISSION

*Chia Chun C., Hui Min H., Ya Ling W.*

**ID: PENSA-12**

RISK FACTORS OF CENTRAL-LINE ASSOCIATED BLOODSTREAM INFECTION AMONG ADULT PATIENTS ON PARENTERAL NUTRITION

*Fong P.W.F., Bangguan S.C.J., Hwang K.Y., Seenivasagam S.*

**ID: PENSA-18**

PROTEIN PROVISION FOR LUPUS NEPHRITIS PATIENT ON DIALYSIS WITH UNRESPONSIVE HYPOALBUMINEMIA: A CASE REPORT

*Marcia Kumala., Diana Sunardi., Diyah Eka Andayani., Nurul Ratna Mutu Manikam.*

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AN UNEXPECTED CASE OF SEVERE SCURVY IN A CHEMOTHERAPY PATIENT WITH LYMPHOMA

*Siree Wongrukmit, Aimwipa Lueprasitsakul, Phakteema Phuthong*

**ID: PENSA-21**

OCCURRENCE AND RISK FACTORS OF REFEEDING SYNDROME IN ADULT PARENTERAL NUTRITION PATIENTS: A RETROSPECTIVE STUDY AT A MALAYSIAN TEACHING HOSPITAL

*Premakumar C.M., Sadu Singh B.K. & Wei N.T.*

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IMPROVING OPERATIONAL EFFECTIVENESS VIA QUALITY AUDITING: A STUDY IN CONTINUOUS IMPROVEMENT

*Bhakti Samant, Fiona Sampat, Shifa Chisti, Madhumita Sadhuka*

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NUTRITIONAL CONUNDRUM IN FEEDING MALNOURISHED ELDERLY WITH SEVERE GLYCOGEN DEPLETION: A CASE STUDY

*Siti Nurhana Abd Wahid.<sup>1</sup>, Fadhlina Abd Samad.<sup>2</sup>*

**ID: PENSA-29**

A ONE-YEAR RETROSPECTIVE AUDIT ON NUTRITIONAL SCREENING OF GENERAL SURGICAL PATIENTS ON ADMISSION TO HOSPITAL RAJA PERMAISURI BAINUN, IPOH

*AZ Ramli<sup>1,2</sup>, LL Tan<sup>1</sup>, RM Velayutham<sup>1</sup>, EHB Ng<sup>1</sup>*

**ID: PENSA-30**

EFFECT OF GLUTAMINE SUPPLEMENTATION FOR A DIAGNOSED PATIENT WITH CELIAC DISEASE WITH VILLOUS ATROPHY, PRESENTED WITH UNRESPONSIVE CHRONIC DIARRHOEA

*S.D.U.A.M. Gunawardhana<sup>1</sup>, M. Pathirage<sup>2</sup>*

## RESTORING & REDEFINING CLINICAL NUTRITION

### ID: PENSA-31

DOES PROVISION EARLY ENTERAL NUTRITION VS. DELAYED ENTERAL NUTRITION IMPACT CLINICAL OUTCOMES IN ADULT CRITICALLY ILL PATIENTS?

*Ji-Yeon Kim<sup>1,2</sup>, Min Kwan Kwon<sup>3</sup>, KSPEN guideline committee.*

### ID: PENSA-38

HOME HEALTH CARE ISSUES WITH ENTERAL NUTRITION

*Yuri Ouchi<sup>1</sup>, Satomi Nasu<sup>1</sup>, Keiko Sekido<sup>1</sup>*

### ID: PENSA-39

A SINGLE CENTRE EXPERIENCE OF NUTRITION SUPPORT IN COMPLEX ENTEROCUTANEOUS FISTULA CASE SERIES

*LL Tan<sup>1</sup>, AZ Ramli<sup>1,5</sup>, RM Velayutham<sup>1</sup>, EHB Ng<sup>1</sup>, MF Phoon<sup>2</sup>, HN Choong<sup>3</sup>, N.Badaruddin<sup>4</sup>*

### ID: PENSA-40

THE SALVATION OF DISUSED SMALL INTESTINE: A CASE OF INTEGRATED THERAPY FOR POSTOPERATIVE GASTROCOLIC FISTULA

*Chenguang Li<sup>1</sup>, Kaiyue Gao<sup>1</sup>, and Di Zhao<sup>2</sup>*

### ID: PENSA-41

POSTOPERATIVE MEDICAL NUTRITION THERAPY IN PATIENT WITH ASCENDING COLON ADENOCARCINOMA, SEVERE MALNUTRITION, AND PRO CHEMOTHERAPY: A CASE REPORT

*Arieska Felicia.<sup>1</sup>, Diana Sunardi.<sup>1</sup>*

### ID: PENSA-42

THE ANTI-INFLAMMATORY EFFECTS OF OMEGA-3 SUPPLEMENTATION IN A PATIENT WITH AUTOIMMUNE ENCEPHALITIS: A CASE REPORT

*Indah Sri Wulandari.<sup>1</sup>, Lily Indriani Octovia.<sup>1</sup>, Krisadelfa Sutanto.<sup>1</sup>, Dita Aditianingsih.<sup>2</sup>*

### ID: PENSA-45

ENTERAL FEEDING: THE REFEEDING RISK OFTEN OVERLOOKED

*Ng YX.<sup>1</sup>, Ng HB.<sup>2</sup>, Choong HN.<sup>2</sup>*

### ID: PENSA-46

NURSING EXPERIENCE OF CARING FOR A CRITICALLY ILL PATIENT WITH ECMO

*Cheng Hui Ying<sup>1</sup>*

### ID: PENSA-47

PRE-OPERATIVE MALNUTRITION RISK AND THE NUTRITION GAP AMONG SURGICAL PATIENTS IN PUBLIC HOSPITALS

*Aishah Z.A.A.<sup>1,2</sup>, Zalina A.Z.<sup>1,2</sup>, Barakatun N.M.Y.<sup>1,2</sup>, Zubaidah N.H.<sup>3,4</sup>, Faisal J.<sup>3,4</sup>*

### ID: PENSA-48

LESSON LEARNT ON THE ROLE OF PERIOPERATIVE NUTRITION PATHWAY, COMBINATION OF NUTRITIONAL SUPPORT AND IMMUNO-NUTRIENTS INITIATION IN ONCOLOGICAL SURGERY PATIENT: A CASE STUDY

*Aishah Z.A.A.<sup>1</sup>, Irdina Z.Y.<sup>2</sup>, Zalina A.Z.<sup>1,2</sup>, Nur S.A.G.<sup>3,4</sup>, Andy A.A.R.<sup>4</sup> and Nurul A.J.<sup>5</sup>*

### ID: PENSA-50

CASE REPORT OF GLUCOSE-GALACTOSE MALABSORPTION IN A NEONATE: DIAGNOSIS, MANAGEMENT, AND NUTRITIONAL CHALLENGES

*Roopasingha R.K.C.<sup>1</sup>, Liyanage S.N.<sup>1</sup>, Mohan S.V.<sup>1</sup>, Gamage M.P.<sup>1</sup>*

### ID: PENSA-51

EPIDEMIOLOGICAL PROFILE ON CASES REFERRED TO NUTRITION SUPPORT TEAM IN HOSPITAL TUANKU JA'AFAR SEREMBAN

*Hannah FZ.<sup>1</sup>, Amilah F.<sup>1</sup>, Hafinni NH.<sup>1</sup>, Surita S.<sup>1</sup>, Pooneswary S.<sup>1</sup>, Alif Y.<sup>1</sup>, Farizan A.<sup>1</sup>, Lydianis B.<sup>2</sup>, Dhivya S.<sup>3</sup>, Mustapa KI.<sup>4</sup>*



## RESTORING & REDEFINING CLINICAL NUTRITION

**ID: PENSA-53**

UTILIZING ALBUMEN LEVELS AND NUTRITIONAL ASSESSMENT IN EVALUATION OF MALNUTRITION IN MAINTAINANCE HEMODIALYSIS PATIENTS

*Varsha B. Gorey<sup>1</sup>, J.Rao<sup>1</sup>, S. Kedar<sup>1</sup>*

**ID: PENSA-54**

POSSIBLE SARCOPENIA AND ITS ASSOCIATION WITH HOSPITAL-ASSOCIATED DYSPHAGIA AND DECLINE IN PHYSICAL FUNCTION: FINDINGS FROM A HEART FAILURE PATIENTS PROSPECTIVE COHORT STUDY

*Yoshihiro Yoshimura<sup>2</sup>, Yuichi Maeno<sup>1</sup>, Sayoko Tanaka<sup>1</sup>*

**ID: PENSA-57**

UNIFIED APPROACH AND INTERDISCIPLINARY TEAM SUCCESS AT MANDALAR HOSPITAL: COLLABORATIVE NUTRITION THERAPY IN A COMPLEX CASE

*Thiri Z.<sup>1</sup>, Nandar S.L.<sup>1</sup>*

**ID: PENSA-58**

NUTRITION OUTLOOK IN A SURGICAL DEPARTMENT IN A DISTRICT HOSPITAL: A CROSS-SECTIONAL COHORT

*NFM Hafiz<sup>1</sup>, KY Lim<sup>1</sup>, YZ Lai<sup>1</sup>, BC Lua<sup>1</sup>, CW Ngo<sup>1</sup>*

**ID: PENSA-59**

EARLY ENTERAL NUTRITION IN NEURO ICU: IMPACT ON MORTALITY AND BARRIERS TO IMPLEMENTATION

*Mo H.<sup>1</sup>, Shin D.W.<sup>2</sup>, Koh D.H.<sup>3</sup>, Ahn S-B.<sup>2</sup>, Chung Y-K<sup>4</sup>, Choi E-H<sup>5</sup>, Choi H-R<sup>6</sup>*

**ID: PENSA-60**

NUTRITIONAL MANAGEMENT OF CHYLOTHORAX IN A PATIENT WITH ADVANCED MEDIASTINAL LYMPHOMA.

*Nathaniel Keshan R<sup>1</sup>*

**ID: PENSA-61**

THE ACTUAL ACTIVITIES AND CHALLENGES OF NURSES IN NUTRITIONAL THERAPY IN JAPAN

*Satomi Nasu<sup>1</sup>, Yuri Ouchi<sup>1</sup>, Keiko Sekido<sup>1</sup>*

**ID: PENSA-62**

ASSOCIATION OF ENERGY AND PROTEIN DELIVERY IN CRITICALLY ILL PATIENTS WITH LOW MUSCULARITY ASSESSED BY COMPUTED TOMOGRAPHY: A RETROSPECTIVE STUDY

*Carolyn Tze Ing Loh<sup>1</sup>, M. Shahnaz Hasan<sup>1,2</sup>, Ching Choe Ng<sup>1</sup>, Wai Yee Chan<sup>3</sup>, Prasath Swaminathan<sup>4</sup>, Tengku Nurul Amirah<sup>1</sup>, Yap Sher Theng<sup>1</sup>, Nor'azim Mohd Yunos<sup>1,2</sup>, Christian Stoppe<sup>5,6</sup>, Charles Chin Han Lew<sup>7,8</sup>, Zheng-Yii Lee<sup>1,6</sup>*

**ID: PENSA-63**

ASSESSING PARENTERAL NUTRITION SERVICES AMONG PHARMACISTS IN MALAYSIAN HOSPITALS: A CROSS-SECTIONAL STUDY

*Sharmila Seenivasagam<sup>1</sup>, Chandini Menon Premakumar<sup>1</sup>, Birinder Kaur Sadu Singh<sup>2</sup>*

**ID: PENSA-64**

MAPPING THE LANDSCAPE: A SCOPING REVIEW ON ENHANCED RECOVERY AFTER SURGERY (ERAS) PROTOCOL IN UPPER GASTROINTESTINAL SURGERY.

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**ID: PENSA-66**

RATE BASED VS VOLUME BASED FEEDING FOR CRITICALLY ILL PATIENTS IN ICU.

*Vijayalaxmi Sirasangi<sup>1</sup>, Dhivya E<sup>1</sup>, Ananya Konar<sup>1</sup>*

**ID: PENSA-67**

TO EVALUATE THE IMPACT OF DIABETES SPECIFIC HIGH PROTEIN HIGH FIBER (DSHPHF) FORMULA WITH MODIFIED CARBOHYDRATE BLEND ON POST PRANDIAL SUGAR LEVELS IN CRITICALLY ILL PATIENTS

*Madhusmita Mohapatra<sup>1</sup>, Dr. Nikhil Kelkar<sup>2</sup>, Jyoti Nunse<sup>3</sup>*

## RESTORING & REDEFINING CLINICAL NUTRITION

**ID: PENSA-68**

PREVALENCE OF DIABETES, CARDIOVASCULAR DISEASES & OBESITY IN EMPLOYEES WORKING IN A MULTINATIONAL COMPANY DUE TO FAULTY EATING HABITS

*Mehraa S<sup>1</sup>, Singh A<sup>1</sup>*

**ID: PENSA-69**

NUTRITIONAL MANAGEMENT OF BOERHAAVE,S SYNDROME- A CASE STUDY

*Madhusmita Mohapatra<sup>1</sup>*

**ID: PENSA-71**

NUTRITION INTERVENTION IN OSMOTIC DEMYELINATION SYNDROME-A CASE REPORT

*Madhusmita Mohapatra<sup>1</sup>*

**ID: PENSA-72**

SYNBIOTIC SUPPLEMENTATION IMPROVED DIARRHEA IN SEVERELY BURNED PATIENT WITH LACTOSE INTOLERANCE: A CASE REPORT

*Anita Janetthe Apriyanti.<sup>1</sup>, Lily Indriani Octovia.<sup>1</sup>, Wina Sinaga.<sup>1</sup>, Dewita Nina Paramita.<sup>1</sup>, Aditya Wardhana.<sup>2</sup>*

**ID: PENSA-73**

PREVALENCE OF NUTRITIONAL RISK AND ITS IMPACT ON CLINICAL OUTCOMES AMONG SURGICAL PATIENTS : A RETROSPECTIVE CROSS-SECTIONAL STUDY

*Saiyidah Adila MA<sup>1</sup>, Chik Ian<sup>1</sup>*

**ID: PENSA-74**

THE ROLE OF PROTEIN ADEQUACY IN REDUCING NEUTROPHIL TO LYMPHOCYTE RATIO IN GERIATRIC PATIENTS WITH ELECTRICAL BURN INJURIES: A CASE REPORT

*Astriliana Febrianawati<sup>1</sup>, Lily Indriani Octovia<sup>1</sup>, Nurul Ratna Mutu Manikam<sup>1</sup>, Dewita Nina Pramita<sup>1</sup>, Aditya Wardhana<sup>2</sup>*

**ID: PENSA-75**

MANAGING PROTEIN-ENERGY UNDERNUTRITION: A TRANSITION FROM PARENTERAL TO ENTERAL FEEDING IN A POST-MINI GASTRIC BYPASS PATIENT

*Yip Song Qing<sup>1</sup>*

**ID: PENSA-76**

A COMPARISON OF CHYME REINFUSION THERAPY METHODS: TWO CASE STUDIES

*Perera W.T.S<sup>1</sup>, Hardy Gil<sup>2</sup>, De Zoysa I<sup>1</sup>*

**ID: PENSA-79**

EARLY ENTERAL NUTRITION VERSUS DELAYED ENTERAL NUTRITION IN CRITICALLY ILL CANCER PATIENTS

*Ji-Yeon K.<sup>1,2</sup>, Sung-Sik H.<sup>1,3</sup>, Jong-Mok L.<sup>1,4</sup>, Won-Ho H.<sup>1,5</sup>, Jea-Hoon L.<sup>1,5</sup>, MoK-Young J.<sup>1,6</sup>, Gyu-Ri K.<sup>1,7</sup>*

**ID: PENSA-80**

ENSURING ADEQUACIES: A CASE REPORT ON A SLEEVE GASTRECTOMY LOST TO FOLLOW UP

*Teo SL1, Chiam KH<sup>1</sup>*

**ID: PENSA-81**

EARLY INITIATION AND RAPID ADVANCEMENT OF ENTERAL NUTRITION IN CRITICALLY ILL PATIENTS

*Jungwon Cho<sup>1</sup>, Ahreum Shin<sup>1</sup>, Chami Im, MD,<sup>1</sup>*

**ID: PENSA-84**

EFFECT OF NUTRITION ON ADVERSE EVENTS AND CHANGES IN BODY COMPOSITION DURING NEOADJUVANT CHEMORADIOTHERAPY IN RECTAL CANCER

*DH Jo.<sup>1</sup>, SH Lee.<sup>1</sup>, TS Ahn.<sup>1</sup>, DH Kang.<sup>1</sup>, EH Kim.<sup>1</sup>, MJ Baek.<sup>1</sup>*

## RESTORING & REDEFINING CLINICAL NUTRITION

### **ID: PENSA-85**

EXPLORING POTENTIAL TYPE 2 DIABETES REMISSION IN OBESE PATIENTS: SHORT-TERM IMPACT OF INTENSIVE METABOLIC INTERVENTION BEFORE BARIATRIC SURGERY

*Abuzar Jamalulail<sup>1</sup>, Ramizah Mohd Shariff<sup>1</sup>, Sze Chee Tee<sup>1</sup>, Shukri Jahit<sup>1</sup>*

### **ID: PENSA-86**

THE IMPACT OF NUTRITIONAL INTERVENTION BY THE NUTRITIONAL SUPPORT TEAM ON THE PREVENTION OF EXTRAUTERINE GROWTH RESTRICTION IN VERY LOW BIRTH WEIGHT INFANTS

*Mi Lim Chung<sup>1</sup>, Seung Yun Lee<sup>1</sup>, Jong Sik Jung<sup>1</sup>, Min kyoung Lee<sup>1</sup>, Mi Joo Ryu<sup>1</sup>, Hye Su Hwang<sup>2</sup>*

### **ID: PENSA-87**

THE ROLE OF PARENTERAL NUTRITION IN POST BARIATRIC PATIENT

*Kavinmithra V<sup>1</sup>, Ramizah MS<sup>1</sup>, Khei Choong K<sup>2</sup>, Sze Chee T<sup>1</sup>, Shukri J<sup>1</sup>*

### **ID: PENSA-88**

THE RELIABILITY OF DIFFERENT DYNAMOMETERS IN MEASURING HAND GRIP STRENGTH

*Pei Pei Lee<sup>1</sup>, Alexander ZY Lim<sup>1</sup>, Yvonne YY Wong<sup>1</sup>, Wei Keat Ooi<sup>1</sup>*

### **ID: PENSA-89**

CHOLINE AS ESSENTIAL NUTRIENT IN MEDICAL NUTRITION THERAPY FOR MALNOURISHED PATIENT WITH INTRACRANIAL GERMINOMA

*Josephine Claudia Sirait<sup>1</sup>, Agustinus I Wayan Harimawan<sup>1</sup>*

### **ID: PENSA-90**

CASE REPORT - GOING FORWARD: FROM PARENTERAL FEEDING TO MANAGING STOMA OUTPUT FOR POST-OPERATIVE CASE OF SMALL BOWEL VOLVULUS

*Izzah I., Farah Farhanah H.<sup>1</sup>*

### **ID: PENSA-91**

OBSERVATIONAL STUDY ON PROTEIN AND ENERGY GAP IN PATIENT REFERRED TO NUTRITION SUPPORT TEAM

*Hannah FZ.<sup>1</sup>, Amilah F.<sup>1</sup>, Hafinni NH.<sup>1</sup>, Surita S.<sup>1</sup>, Pooneswary S.<sup>1</sup>, Alif Y.<sup>1</sup>, Farizan A.<sup>1</sup>, Lydianis B.<sup>2</sup>, Dhivya S.<sup>3</sup>, Mustapa KI.<sup>4</sup>*

### **ID: PENSA-92**

THE ROLE OF GLUTAMIN AS ESSENTIAL NUTRITION IN MEDICAL NUTRITION THERAPY FOR MODERATE MALNUTRITION WITH PUSTULAR PSORIASIS AND CELLULITIS

*M. Candra Wijanadi<sup>1</sup>, Agustinus I Wayan Harimawan<sup>1</sup>*

### **ID: PENSA-96**

PERIOPERATIVE NUTRITION SUPPORT IN ABDOMINAL SURGERY

*Koy Seong C.<sup>1</sup>*

### **ID: PENSA-97**

TWO CASE REPORTS OF REFEEDING SYNDROME IN GERIATRIC CRITICALLY ILL PATIENTS: DILEMMA DURING PARENTERAL NUTRITION SHORTAGES

*Octovia, L.I<sup>1</sup>, Wulandari, I<sup>1</sup>, Fabiani, H<sup>1</sup>, Kusumawardani, F. N.<sup>1</sup>*

### **ID: PENSA-98**

QUALITY OF LIFE AMONG HOME PARENTERAL NUTRITION PATIENTS IN TERTIARY HOSPITAL

*Khong Khei Choong<sup>1</sup>, Muhammad Ashraf Muhamad Jalani<sup>1</sup>, Nik Nuradliina Nik Adnan<sup>1</sup>, Tee Sze Chee<sup>2</sup>, Mohammad Shukri Jahit<sup>2</sup>*

### **ID: PENSA-99**

MEDICAL NUTRITION THERAPY IN PATIENT AFTER BARIATRIC SURGERY

*Nurhati F.<sup>1</sup>*

## RESTORING & REDEFINING CLINICAL NUTRITION

### **ID: PENSA-100**

PROSPECTIVE COMPARATIVE STUDY OF ENTERAL AND PARENTERAL NUTRITION AFTER ESOPHAGECTOMY: IMPACT ON SHORT TERM CLINICAL OUTCOMES

*Ramizah Mohd Shariff<sup>1</sup>, Khei Choong Khong<sup>2</sup>, Sze Chee Tee<sup>1</sup>, Shukri Jahit<sup>1</sup>*

### **ID: PENSA-101**

FEEDING JEJUNOSTOMY IN ELECTIVE MALIGNANT ESOPHAGOGASTRIC SURGERY – IS IT NECESSARY OR IS IT A BURDEN? A SINGLE CENTRE EXPERIENCE IN SABAH

*Yvonne YY Wong<sup>1</sup>, Alexander ZY Lim<sup>1</sup>, Pei Pei Lee<sup>1</sup>, Wei Keat Ooi<sup>1</sup>*

### **ID: PENSA-102**

A CASE REPORT: USING GRAVITY BAG FOR INTERMITTENT NASOJEJUNAL FEEDING IN A PATIENT WITH MALIGNANT GASTRIC OUTLET OBSTRUCTION

*Eliza Yen Sim W.<sup>1</sup>, Chin Weun C.<sup>2</sup>*

### **ID: PENSA-103**

DAIRY CONSUMPTION AND ASSOCIATIONS WITH NUTRITIONAL STATUS IN 4-6-YEAR-OLD PRESCHOOL INDONESIAN CHILDREN

*Noor D. Erlinawati.<sup>1</sup>, Ellen M. Djatmiko.<sup>2</sup>, Corry Y. Melaputri.<sup>3</sup>, Abiyasya D. Haq.<sup>3</sup>, Raysya Shade.<sup>3</sup>, Stevanie Patricia.<sup>3</sup>, Salsabila F. Al-Farid.<sup>3</sup>*

### **ID: PENSA-107**

SEVERE VITAMIN D DEFICIENCY PRESENTING AS HYPOCALCAEMIC SEIZURES IN AN INFANT: A CASE OF NUTRITIONAL RICKETS

*Koottage M.K.M.C.<sup>1</sup>, Samarasekara T.<sup>2</sup>*

### **ID: PENSA-110**

INTEGRATING CLOUD STORAGE AND ARTIFICIAL INTELLIGENCE TO INCREASE COMPLIANCE TO MANUAL LOCAL CENTRAL CATHETER CARE GOVERNANCE PROGRAMME: A SINGLE CENTRE EXPERIENCE

*MPL Chia<sup>1</sup>, CZ Chai<sup>1</sup>, S Zulaika S<sup>1</sup>, Bhuwaneswaran V<sup>2</sup>, YR Tan<sup>1</sup>, Sekkapan TS<sup>1</sup>, HA Mahendran<sup>1</sup>, T Nur'Azmah TM<sup>1</sup>*

### **ID: PENSA-111**

PARENTERAL NUTRITION IN SABAH: A REVIEW OF USAGE, INDICATIONS, COST-BENEFIT ANALYSIS OF HOSPITAL QUEEN ELIZABETH, SABAH

*Sharon ZC Chong<sup>1</sup>, Moses YK Wong<sup>1</sup>, Thiagaraj A/L V<sup>1</sup>, WK Ooi<sup>1</sup>*

### **ID: PENSA-112**

ENTERAL NUTRITIONAL SUPPORT IN HOSPITAL QUEEN ELIZABETH, SABAH: A DESCRIPTIVE STUDY

*Kanagendra J<sup>1</sup>, Thiagaraj V<sup>1</sup>, KY Low<sup>1</sup>, WK Ooi<sup>1</sup>*

### **ID: PENSA-114**

THE EFFECTIVENESS OF PROBIOTICS OR SYNBIOPTICS IN THE PREVENTION AND TREATMENT OF DIARRHEA AMONG ADULT CRITICALLY ILL PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROL TRIALS

*Boshra Bagdadi<sup>1\*</sup>, Ali Alqazlane<sup>2</sup>, May Alotaibi<sup>3</sup>, Ahlam Alamoudi<sup>4</sup>, Laila Baghdadi<sup>4</sup>, Amna Mohammad Mahmood<sup>5</sup>, Ibrahim Al-Neam<sup>6</sup>, Idrees Fageehi<sup>7</sup>, Mater Salamah<sup>1,2</sup>, and Sami Majrab<sup>4</sup>*

### **ID: PENSA-115**

NUTRITIONAL INTERVENTIONS IN IMMUNOTHERAPY FOR ADVANCED HEPATOCELLULAR CARCINOMA: A CASE OF IMPROVED OUTCOMES THROUGH MEDICAL NUTRITION THERAPY

*Dr Kay Zin Lwin.<sup>1</sup>*

### **ID: PENSA-116**

THE INTERSECTION OF CULTURE AND CLINICAL NUTRITION: A CASE STUDY IN ESOPHAGEAL CANCER RECOVERY

*Dr Kay Zin Lwin.<sup>1</sup>*

### **ID: PENSA-117**

COMPARATIVE ANALYSIS OF BIOELECTRICAL IMPEDANCE AND CT-BASED BODY COMPOSITION CHANGES BEFORE AND AFTER OPEN VS. MINIMALLY INVASIVE PANCREATODUODENECTOMY

*Juwan Kim<sup>1</sup>, Sung Hyun Kim<sup>1</sup>*

## RESTORING & REDEFINING CLINICAL NUTRITION

**ID: PENSA-118**

FOOD SAFETY KNOWLEDGE AMONG JORDANIANS: A NATIONAL STUDY

*Abdulhakeem Mahmoud Okour<sup>1</sup>, Eva Alzein<sup>2</sup>, Rami Saadeh<sup>1</sup>, Mahmoud alfaqih<sup>1</sup>*

**ID: PENSA-119**

SALT INTAKE HABITS AND CLINICAL FACTORS MANIFESTING HIGH BLOOD PRESSURE PATIENTS: A NATIONAL STUDY

*Rami Saadeh<sup>1</sup>, Nourah Mohammad<sup>1</sup>*

**ID: PENSA-122**

PHYSIOLOGICAL CHANGES RELATED TO CANCER AND TREATMENT-RELATED SYMPTOMS AND THE IMPORTANCE OF OPTIMAL NUTRITION SUPPORT IN MANAGING ONCOLOGY PATIENT

*Hoo Gai Yan<sup>1</sup>*

**ID: PENSA-123**

APPETITE ASSESSMENT IN KIDNEY PATIENTS IN A TERTIARY CARE CENTER

*Zamurrud Patel<sup>1</sup>, Disha Jhaveri<sup>1</sup>, Shruti Tapiawala<sup>1</sup>, Bharat Shah<sup>1</sup>*

**ID: PENSA-124**

MEDICAL NUTRITION THERAPY IN STEVEN-JOHNSON SYNDROME/TOXIC EPIDERMAL NECROLYSIS (SJS/TEN) PATIENT WITH SEVERE MALNUTRITION: A CASE REPORT

*Angelia SR.<sup>1\*</sup>, Witarto Y.<sup>1</sup>, Ayu RM.<sup>2</sup>*

**ID: PENSA-125**

SUCCESSFUL NUTRITIONAL THERAPY IN SUPERIOR MESENTERIC SYNDROME WITH CONCURRENT HIRSCHSPRUNG DISEASE

*Lailyvia M I<sup>1,2</sup>, Siti Rahmah H I Merican<sup>1,2</sup>, M M Yahya<sup>1,2</sup>, Ikhwan S M<sup>1,2</sup>, W M Mokhter<sup>1,2</sup>*

**ID: PENSA-126**

DISTRIBUTION AND DETERMINANTS OF OBESITY AND ITS CORRELATION WITH WAIST CIRCUMFERENCE AND METABOLIC MARKERS AMONG OBESE FEMALE EMPLOYEES AT ADAM MALIK HOSPITAL, MEDAN, INDONESIA

*Haviza N.<sup>1</sup>, Hilna Khairunisa S.<sup>2</sup>, Dini F.<sup>2</sup>*

**ID: PENSA-127**

STRESS AND CHOLESTEROL: EXPLORING THEIR HIDDEN LINK ON MINDFUL EATING IN TEACHERS

*NurZetty SZ.<sup>1</sup>, Hana F.<sup>1</sup>, Aqilah HH.<sup>1</sup>, Divya V.<sup>1</sup>, Affizal A.<sup>2</sup>, Nani D.<sup>3</sup>, Zahara AM<sup>4</sup>.*

**ID: PENSA-128**

HOME PN IN DISTRICT: A CASE SERIES

*SakinahJ<sup>1</sup>, AA Rashid<sup>1</sup>, CW Ngo<sup>1</sup>*

**ID: PENSA-129**

MANAGEMENT OF HIGHER INTERDIALYTIC WEIGHT GAIN AND PRE-DIALYSIS BLOOD PRESSURE BY DIET EDUCATION AMONG HEMODIALYSIS PATIENTS

*Yunita; Atmaja<sup>1</sup>, Elsa Mukti<sup>1</sup>*

**ID: PENSA-131**

CLINICAL EXPERIENCES WITH CHYME REINFUSION THERAPY IN ADULTS AND NEONATES

*William Lin<sup>1</sup>, Emma Ludlow<sup>1</sup>, Gil Hardy<sup>1</sup>*

**ID: PENSA-132**

EFFECT OF HIGH-CALORIE, HIGH PROTEIN SUPPLEMENTATION ON CLINICAL OUTCOMES IN INTENSIVE CARE UNIT (ICU) PATIENTS: A PILOT STUDY.

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**ID: PENSA-133**

TO EVALUATE MALNUTRITIONAL STATUS USING GLIM NUTRITIONAL ASSESSMENT & DYSPHAGIA IN REHABILITATION CENTRE

*Ms. Haritha Shyam<sup>1</sup> (Chief Dietician), Manasa kosireddy<sup>1</sup> (Dietician), Ms.Sanjana<sup>1</sup> (Intern)*

## RESTORING & REDEFINING CLINICAL NUTRITION

**ID: PENSA-134**

ENHANCED RECOVERY AFTER SURGERY PROTOCOL IN CRITICAL CARE: CONSEQUENCES OF NON-IMPLEMENTATION

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**ID: PENSA-135**

NUTRITIONAL STATUS AND NUTRIENT ADEQUACY IN ECMO PATIENTS

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**ID: PENSA-136**

SPOTLIGHT ON MALNUTRITION: EXPLORING PREVALENCE AND RISK FACTORS IN A PUBLIC HOSPITAL IN MALAYSIA USING GLOBAL LEADERSHIP INITIATIVE ON MALNUTRITION (GLIM) CRITERIA

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**ID: PENSA-137**

CASE REPORT : THE EFFECT OF HIGH PROTEIN WITH OLIVE EXTRACT (HYDROXYTYROSOL) ADMINISTRATION ON LENGTH OF HOSPITALIZATION AND BODY WEIGHT OF COVID-19 PATIENTS

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## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-03

### SHORT-TERM PREHABILITATION PROMOTE WEIGHT LOSS AND PRESERVE MUSCLE MASS BEFORE BARIATRIC SURGERY

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#### Introduction

Bariatric Surgery Has Been Shown To Achieve Greater Weight Loss Than Non-Surgical Management And, More Importantly, To Maintain It Over The Time. It Has Proven Effective In Managing Obesity. Prehabilitation Improves Functional And Physiological Capacity Before Bariatric Surgery. The Study Aimed To Evaluate The Change In Body Composition And Functional Status Following Short-Term Prehabilitation Among Morbidly Obese Patients Before Bariatric Surgery.

#### Materials / Methods

This Prospective Observation Study Targeted Those Admitted For Short-Term Prehabilitation Before Bariatric Surgery. An Individualized Whey Protein-Based Very Low-Calorie High Protein (Vlchp) Enteral Regime (600-900Kcal/Day; 1.3G/Kg/Day Protein) And Moderate-Intensity Aerobic Exercise Were Implemented For 2 Weeks. Body Composition Was Measured By The Body Composition Analyzer Model Sc 300; And Handgrip Strength By The Jamar Dynamometer. Participants Were Segregated Into The Obese (Og) (Bmi <49Kg/M2) And Severely Obese Group (Sog) (Bmi ≥ 50Kg/M2). Data Was Analyzed By The Mann-Whitney And Wilcoxon Signed-Rank Test.

#### Findings / Results

A Total Of 45 Participants Were Recruited And A Majority Of Them Were Female (71%). The Median Age Was 36.0 Years Old (Og) And 34.3 Years Old (Sog). Sog Achieved A Significantly Higher Median Weight Loss Percentage (-7.4% Vs -4%), Fat Percentage (-4.4% Vs -1.7%), And Fat Mass Loss (-9.9Kg Vs -3.8Kg); But Og Had A Significant Better Muscle Mass (3.2Kg Vs 2.8Kg) As Compared To Sog (P<0.001). Both Groups Showed A Significant Reduction In Waist Circumference And Improvement In Handgrip Strength After Prehabilitation (P<0.001).

#### Discussion / Conclusion

Body Composition Measurement And Changes Remain Critical In Nutritional Assessment To Achieve Successful Surgery And Minimize Nutritional Complications. Coupled With Moderate-Intensity Aerobic Exercise, The Whey Protein-Based Vlchp Regime Preserves Myofibrillar Protein Synthesis; Promotes Greater Muscle Strength And Mass; And Reduces Fat Mass During Negative Energy Balance Periods. Heavier Individual Requires More Energy To Carry Out A Task Of Similar Magnitude Than A Lighter Individual. Hence, Heavier Individuals Lose Weight Faster Than Lighter Individuals Do. Conclusion: Individualized Whey Protein-Based Vlchp Enteral Regime And Moderate Intensive Exercise Encourage Weight Loss; Increase Muscle Mass And Strength; And Improve Function Status Before Bariatric Surgery. The Fortnightly Prehabilitation Might Be Integrated Into The Routine Clinical Practice To Improve Body Composition And Functional Status Before Bariatric Surgery.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-13

### MANAGING HOME PARENTERAL NUTRITION DURING PREGNANCY IN PATIENT WITH SHORT BOWEL SYNDROME: A SUCCESSFUL EXPERIENCE IN SABAH, MALAYSIA

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#### Introduction

Short Bowel Syndrome (Sbs) Is One Of The Pathophysiological Mechanisms Of Chronic Intestinal Failure (If) Which Warrants Long-Term Parenteral Nutrition (Pn). In Pregnancy, Pn Use For Non-If Indications Has Been Commonly Reported, But Not For If Since Before Pregnancy.

#### Materials / Methods

(Case Report)

#### Findings / Results

Patient Was A 24-Year-Old Female Upon Being Diagnosed With Gangrenous Bowel Secondary To Congenital Malrotation In 2015. Extensive Bowel Resection With Remaining 15Cm Duodenum Anastomosed To Transverse Colon Resulted In Sbs Requiring Lifelong Home Pn (Hpn). In February 2020, Patient Discovered Her Third Pregnancy (G3P1A1). She Was Underweight At 41.8Kg. Energy From Pn Was Increased From 27.4Kcal/Kg/Day To Maximum 37.6Kcal/Kg/Day, With Addition Of Multivitamins, Trace Elements (Tes) And Electrolytes Tailored To Weekly Blood Results. At Gestation Week 30, She Developed Sepsis Due To Catheter Infection, Requiring Hospitalization And Adjustment On Pn Calorie Based On Concurrent Fluid Input. At Gestation Week 34, 24-Hour Urine Urea Test Showed Positive Nitrogen Balance Of +3G/Day. At Gestation Week 37, A Small-For-Gestational-Age Female Infant Was Delivered Via Spontaneous Labour. Apgar Score Demonstrated Excellent Condition And The Infant Managed To Thrive Subsequently.

#### Discussion / Conclusion

Pn Provisions Were Sufficient As Per Guideline, With Slight Increase To Account For The Increased Needs During Pregnancy. Sufficiency Was Also Reflected By The Positive Nitrogen Balance From Urine Urea Test. However, Her Pre-Pregnancy Underweight Status And Insufficient Weight Gain Throughout Pregnancy Put Her At Higher Risk For Low-Birth-Weight Infant. Frequent Monitoring Was Performed To Allow Timely Management On Any Complication. Vitamins And Tes Supplementation Mostly Met The Recommendation For Pregnancy, Which Is However Established For Oral Intake. The Absence Of Neural Tube Defect In Infant And The Mother'S Optimal Serum Hemoglobin Throughout Pregnancy (11.5-13.0G/Dl, Normal: 11.6-15G/Dl) And Ferritin (81.9Ng/Ml, Normal: 2-230Ng/Ml) Suggested Sufficient Folic Acid And Iron Provision. It Is Evident From This Case That Successful Pregnancy Is Possible In Sbs Patients On Hpn With Close Monitoring, Meticulous Planning On Pn And Effective Communication With Patient.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-14

### PERSONALIZED HOME MEDICAL NUTRITION THERAPY IN CANCER CACHEXIA PATIENT WITH LARYNGEAL CANCER: A CASE REPORT

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#### Introduction

Laryngeal Cancer Stands As The Second Most Prevalent Head And Neck Malignancy Worldwide, With A Staggering 177.000 New Cases And 97.000 Deaths Reported In 2020 Alone. The Pathophysiological And Metabolic Alterations Occurring In Cancer Patients Often Lead To The Development Of Malnutrition And Cachexia. Recognizing These Challenges, Nutritional Interventions Have Emerged As Crucial Therapy For Mitigating Malnutrition And Cachexia, Both During And After Hospitalization When Patients Return Home.

#### Materials / Methods

A 51-Year-Old Woman Diagnosed With Stage 3 Laryngeal Cancer, Underwent Total Laryngectomy And Extensive Neck Dissection. Moderate Malnutrition Was Diagnosed Based On Aspen Criteria, Attributed To Inadequate Dietary Intake And Unintentional Weight Loss (13,3%) Over The Past Year. The Comprehensive Goal Of The Nutritional Intervention Was To Improve The Patient'S Nutritional Status In Preparation For Subsequent Radiation Therapy. To Address These Concerns, A Comprehensive Nutritional Intervention Plan Was Implemented, Encompassing Both Hospital-Based Interventions And Personalized Care Delivered At The Patient'S Home.

#### Findings / Results

Over The Course Of Three Consecutive Weeks Home Visit, Remarkable Improvements Were Observed In Various Parameters, Including Increased Daily Intake, Weight Gain (47,2 Kg To 48,3 Kg), Increased Muscle Mass (23,7% To 25,1%), And Improved Handgrip Strength (12,8 Kg To 18 Kg). Furthermore, The Patient Reported A Notable Enhancement In Her Quality Of Life, Particularly In Domains Such As Swallowing, Taste Perception, And Mood By The Substantial Rise In Uw-QoL Questionnaire Scores From 365 To 685 By The Third Week. Medical Nutrition Therapy In The Hospital And Followed By Home Care Had Facilitated The Delivery Of Sustainable, Tailored Nutritional Interventions That Accounted For The Patient'S Economic, Social, And Psychological Circumstances.

#### Discussion / Conclusion

The Success Of Medical Nutritional Therapy In This Case, Both In The Hospital And At Home, Shows The Importance Of Personalized Medical Nutritional Therapy In Improving The Nutritional Status Of Patients With Laryngeal Cancer Before Undergoing Radiation Therapy. Such Personalized Nutritional Support Not Only Holds Promise For Optimizing Treatment Outcomes But Also For Enhancing The Overall Quality Of Life For Patients Struggling With This Debilitating Disease.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-22

### EFFECTIVENESS OF ASSESSING ADDUCTOR POLLICIS MUSCLE AS INDICATOR FOR SARCOPENIA IN CRITICALLY ILL EMERGENCY PATIENTS

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#### Introduction

The Adductor Pollicis Muscle (Apm) Is Flat And Has Minimal Subcutaneous Fat Around It. It Is Relatively Easy For Interventor To Access And Measure The Muscle Directly. The Apm Can Be A Valuable And Important Indicator For Assessing The Nutritional Status Of Patients. This Study Is Aimed For Evaluating The Possibility Of Using The Apm In Assessing The Risk Of Malnutrition Through The Apm And Bioelectrical Impedance Analysis(Bia), And Comparing The Index Of Muscle Mass In Critically Ill Emergency Patients.

#### Materials / Methods

A Retrospective Study Was Conducted On Adult Patients Aged 19 Years Or Older Who Were Admitted To The Emergency Intensive Care Unit At Ajou University Medical Center In South Korea From November 2023 To April 2024. Demographic Information And Hematologic Test Results Were Collected Through Emr (Electronic Medical Records) And The Lowest Value Of The Average Of The Apm Measured Three Times On Each Hand With A Skin Fold Caliper (Jamar, Uk) Was Applied. Bia Was Conducted Using A Body Composition Analyzer (Inbody S-10). According To The 2019 Criteria Of The Asian Working Group For Sarcopenia (Awgs), Sarcopenia Was Defined As  $< 7.0 \text{ Kg/M}^2$  For Male And  $< 5.5 \text{ Kg/M}^2$  For Female. Statistical Analysis Was Performed Using Spss Version 25.0, And P-Value  $< 0.05$  Was Considered Statistically Significant.

#### Findings / Results

Total Subjects Were 107, 62 Male (57.9%) And 45 Female (42.1%). The Average Age Of The Subjects Was  $62.2 \pm 18.8$  Years, Body Mass Index (Bmi) Was  $22.4 \pm 4.5 \text{ Kg/M}^2$ , Apm Was  $24.8 \pm 3.4 \text{ Mm}$ , Smm Measured By Bia Was  $24.5 \pm 5.9 \text{ Kg}$ , Phase Angle (Pa) Was  $4.5 \pm 1.6^\circ$ . The Apm Was Positively Correlated With Smm ( $P < 0.001$ ) And Pa ( $P < 0.001$ ). Sarcopenic Patients (29 Male (46.8%), 18 Female (40.0%)) Showed Significantly Lower Bmi, Apm, Smm And Pa For Both Male And Female Than Non-Sarcopenic Patients. In Patients With Sarcopenia, Apm Was  $24.1 \pm 2.4 \text{ Mm}$  In Male And  $21.4 \pm 2.7 \text{ Mm}$  In Female. Bmi ( $P < 0.001$ ) And Smm ( $P < 0.001$ ) Had A Linear Relation With The Apm.

#### Discussion / Conclusion

Apm Can Be Used To Evaluate Nutritional Status Because Apm Is Related To Smm Measured By Bia, And A Meaningful And Useful Indicator For Predicting Sarcopenia In Critically Ill Emergency Patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-25

### COMPARATIVE EVALUATION OF DIAGNOSTIC ACCURACY AND MALNUTRITION PREVALENCE: GLIM CRITERIA VS. SUBJECTIVE GLOBAL ASSESSMENT

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#### Introduction

Disease-Related Malnutrition Is Prevalent In Hospital Settings, Linked To Higher Rates Of Morbidity, Mortality, Length Of Hospital Stay, And Higher Healthcare Costs And It Is Crucial To Identify And Treat Malnutrition To Improve The Disease Prognosis, Clinical Outcome, And Mortality. Subjective Global Assessment (Sga) Is The Most Commonly Utilized Validated Tool, Suitable For All Patients, And Accessible At The Bedside, However The Results May Vary Based On Evaluator'S Experience. The Global Leadership Initiative On Malnutrition (Glim) Criteria Exhibits Two Primary Potential Benefits - They Reduce Subjectivity In The Diagnosis And Classify Malnutrition According To Severity As Well As The Time Taken. This Study Aimed To Evaluate The Prevalence Of Malnutrition Using Glim Criteria And Sga And To Analyse The Accuracy Of Glim To Identify Malnutrition In Comparison To Sga.

#### Materials / Methods

Data Was Analysed In 575 Hospitalized Patients. Malnutrition Was Defined Using The Glim And Sga Criteria. Cohen'S Kappa Was Used To Analyse The Reliability Between The 2 Scales. Sensitivity, Specificity, Positive Predicted Value, Negative Predicted Value, And Accuracy Was Calculated To Analyse The Accuracy Of Glim In Assessing Malnutrition.

#### Findings / Results

Based On Sga, 119 (20.7%) Were Normal, 381 (66.3%) Had Mild To Moderate Malnutrition And 75 (13%) Had Severe Malnutrition. Based On The Glim Criteria, 139 (24.2%) Were Normal, 286 (49.7%) Had Mild To Moderate Malnutrition And 150 (26.1%) Had Severe Malnutrition. There Was A Moderate Agreement Between The 2 Scales For The Identification Of Malnutrition [Cohen'S Kappa = 0.511 (95% Ci = 5.02 - 5.19), P=0.001]. The Sensitivity Of Glim To Identify Malnutrition Was 87.1% (95% Ci = 83.6%-90%), Specificity Was 67.2% (95% Ci =58.0%-75.6%), Positive Predictive Value Was 91.1% (95% Ci = 88.7% - 93.0%), Negative Predictive Value Was 57.6% (95% Ci = 50.9%-64.0%). Accuracy Was 83.0% (95% Ci = 79.6%-85.9%).

#### Discussion / Conclusion

A Similar Percentage Of Participants Were Identified To Be Normal With Both Glim And Sga. Glim Had A Significantly Higher Sensitivity Than Specificity To Identify Malnutrition In Comparison To Sga.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-43

### CASE REPORT AND LITERATURE REVIEW: KETOGENIC DIET IN AN ADULT WITH SUPRA-REFRACTORY STATUS EPILEPTICUS FROM ANTI-LGI1 ENCEPHALITIS

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#### **Introduction**

Super-Refractory Status Epilepticus (Srse) Is Extremely Challenging To Treat And Carries A High Risk Of Severe Outcomes And Death. When Multiple Antiepileptic Drugs (Aeds) Fail, Clinicians Must Explore Other Therapeutic Options. One Promising Treatment For Srse Is The Ketogenic Diet (Kd). This Report Presents A Case In Which An Adult With Srse, Resulting From Anti-Lgi1 Encephalitis, Was Effectively Treated Using A Medium-Chain Triglyceride Ketogenic Diet (Mctkd).

#### **Materials / Methods**

A 65-Year-Old Woman Was Admitted Due To Srse From Anti-Lgi1 Encephalitis. Her Condition Did Not Respond To Six Antiepileptic Drugs, Including Injections Of Levetiracetam, Valproate, And Midazolam, As Well As Oral Gabapentin, Lacosamide, And Perampnel. Despite Receiving Intravenous Methylprednisolone For Five Days, Her Seizures Continued. She Was Sedated, Placed On A Ventilator, And Fed Via A Nasogastric Tube.

#### **Findings / Results**

The Ketogenic Diet Was Started On The Fourth Day Of Admission (Day 0) Through A Nasogastric (Ng) Tube Using A Classic 4:1 Ketogenic Diet Formula, Providing 8 Grams Of Carbohydrates Per Day. By Day 3, Urinary Ketosis Was Reached, But Serum Ketone Production Was Inadequate, Requiring An Increase In Mct. Consequently, A 2.5:1 Ratio Of Mctkd Was Initiated, Delivering 40 Grams Of Mct Per Day. By Day Eight, The Eeg Showed No Epileptiform Discharges. The Patient Was Tapered Off Midazolam Infusion And Lacosamide While Remaining On Four Antiepileptic Drugs And Seizure-Free. On The Tenth Day, She Was Weaned Off The Ventilator And Moved To The Ward For Her Recovery Program. The Mctkd Was Maintained For Two Months Without Notable Adverse Effects.

#### **Discussion / Conclusion**

The Patient Achieved Seizure Resolution With No Notable Adverse Effects. This Outcome Indicates That The Mctkd Might Be A Safe And Effective Way To Treat Adults With Srse Caused By Anti-Lgi1 Encephalitis.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-52

### CURRENT STATUS AND CHALLENGES OF ENTERAL NUTRITION DURING DISASTERS IN JAPAN

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#### Introduction

Japan Has Experienced Many Disasters, Providing Support To Disaster Victims Who Require Medical Treatment Is A Particularly Important Issue. Patients Who Require Enteral Nutrition Are Often At Home, Making It Difficult For Support To Reach Them During A Disaster, And It Is Necessary To Consider How To Respond. The Purpose Of This Study Is Therefore To Clarify The Current State Of Support And Issues For Disaster Victims In Japan Who Require Enteral Nutrition Through A Literature Review.

#### Materials / Methods

A Search Was Conducted Using The Keywords "Disaster" And "Enteral Nutrition" Using Japan Medical Abstracts Society Website. The Search Was Conducted In May 2024 Over The Past 10 Years. 144 Articles Were Extracted. Of These, 73 Articles That Met The Intent Of This Study Were Selected For Analysis. Abstracts Of The 73 Articles Were Extracted And Analyzed Using Text Mining Techniques.

#### Findings / Results

Cluster Analysis Resulted In The Descriptions Of Enteral Nutrition During Disasters Being Categorized Into Four Clusters. These Were Interpreted As Follows: "Nurses Will Provide Guidance On Preparations For Enteral Nutrition During Disasters", "Nurses Will Use Their Experience During Disasters To Respond To Enteral Nutrition", "Roles Must Be Divided For Enteral Nutrition Management During Disasters" And "In The Future, Support From Registered Dietitians Must Be Considered For Enteral Nutrition Management During Disasters".

#### Discussion / Conclusion

It Is Thought That Providing Enteral Nutrition Will Often Be Difficult In Evacuation Shelters. Reflecting This, Nurses Were Instructing On How To Prepare For Enteral Nutrition In Disasters On A Daily Basis. It Was Also Found That Nurses Respond By Making Use Of Their Experience In Disasters. However, It Was Also Revealed That Nurses Must Respond To Many Medical Procedures Other Than Enteral Nutrition In Disasters, And It Was Considered That The Division Of Roles Was Being Considered. In Particular, It Was Found That The Current Situation Is That Support For Enteral Nutrition Management Is Being Shifted To Registered Dietitians. It Was Suggested That The Future Challenge Is To Effectively Coordinate And Implement The Division Of Roles, With Nurses Who Are Involved On A Daily Basis Instructing Disaster Preparations And Registered Dietitians Providing Support In Disasters.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-55

### PREVALENCE AND CLINICAL IMPACT OF VITAMIN D DEFICIENCY IN CRITICALLY ILL KOREAN PATIENTS WITH TRAUMATIC INJURIES: A SINGLE-CENTER, PROSPECTIVE, OBSERVATIONAL STUDY

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#### **Introduction**

This Study Investigated The Prevalence And Impact Of 25-Hydroxyvitamin D (25(OH) Vitamin D) Deficiency In Critically Ill Korean Patients With Traumatic Injuries.

#### **Materials / Methods**

This Prospective Observational Cohort Study Assessed The 25(OH) Vitamin D Status Of Consecutive Trauma Patients Admitted To The Trauma Intensive Care Unit (Ticu) Of Kyungpook National University Hospital Between January And December 2018. We Analyzed The Prevalence Of 25(OH) Vitamin D Deficiency And Its Impact On Clinical Outcomes.

#### **Findings / Results**

There Were No Significant Differences In The Duration Of Mechanical Ventilation (Mv), Lengths Of Ticu And Hospital Stays, And Rates Of Nosocomial Infection And Mortality Between Patients With 25(OH) Vitamin D <20 Ng/ML And Those With 25(OH) Vitamin D  $\geq$ 20 Ng/ML Within 24 Hours Of Ticu Admission. The Duration Of Mv And Lengths Of Ticu And Hospital Stays Were Shorter And The Rate Of Nosocomial Infection Was Lower In Patients With 25(OH) Vitamin D Level  $\geq$ 20 Ng/ML On Day 7 Of Hospitalization. The Duration Of Mv, Lengths Of Ticu And Hospital Stays, And Nosocomial Infection Rate Were Significantly Lower In Patients With Increased Concentrations Compared With Those With Decreased Concentrations On Day 7 Of Hospitalization, But The Mortality Rate Did Not Differ Significantly.

#### **Discussion / Conclusion**

The 25(OH) Vitamin D Level Measured Within 24 Hours After Ticu Admission Was Unrelated To Clinical Outcomes In Critically Ill Patients With Traumatic Injuries. However, Patients

With Increased 25(OH) Vitamin D Level After 7 Days Of Hospitalization Had Better Clinical Outcomes Than Those With Decreased Levels.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-56

### INTEGRATING NUTRITIONAL SUPPORT IN PALLIATIVE CARE FOR MALE BREAST CANCER: A CASE REPORT

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#### Introduction

Male Breast Cancer Is A Rare Disease With Limited Evidence On The Role Of Nutritional Support In Palliative Care. Integrating Nutritional Intervention Into Oncology Care Is Highly Needed To Improve Quality Of Life And Relieve Symptoms. This Case Report Discusses Nutritional Management Of A Male Breast Cancer Patient During Palliative Treatment.

#### Materials / Methods

Mr N Is A 60-Year-Old Chinese Male. He Was Diagnosed With Male Breast Carcinoma And Is Receiving Hormonal Therapy. He Has Undergone Multiple Lines Of Chemotherapy. However, The 4<sup>th</sup> Line Of Chemotherapy Was Discontinued Due To Intolerance And Poor Response To Drugs. He Is Underweight With Body Weight: 39.6Kg, Bmi: 16.5Kg/M<sup>2</sup> Upon His First Visit To Dietitian. He Had Problems With Taste Change, Diarrhea, And Poor Denture. He Was Only Able To Tolerate A Soft Diet, With Daily Intake Meeting 79% Of Calorie Requirement. However, Based On Patient-Generated Subjective Global Assessment (Pg-Sga) Short Form, He Was Identified As Moderately Malnourished. He Lost 2.3Kg Of Body Weight, Which Is 5.8% In 1 Week. A High-Calorie (35 Kcal/Kg/Day), High-Protein (1.5G/Kg/Day) Diet Was Prescribed To Prevent Further Weight Loss. After Six Weeks, Mr N Achieved The Requirements Of Energy (102%) And Protein (104%) And The Amount Of Weight Loss Was Reduced, From 2.3Kg In 1 Week To 0.5Kg In 6 Weeks. To Better Control The Diarrhea Issue, He Was Prescribed A Partially Hydrolysed Guar Gum (Phgg), 7.6G One Time Daily.

#### Findings / Results

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#### Discussion / Conclusion

A High Calorie, High Protein Diet May Be Effective In Preventing Drastic Weight Loss For Male Breast Cancer Patients Who Experienced Diarrhea. Further Evaluation Is Needed To Determine The Effect Of Partially Hydrolyzed Guar Gum On Diarrhea. Phgg Can Help To Absorb Excess Fluid In The Intestines And Form A Gel-Like Substance, Which Makes Stool Firmer. More Research Is Needed To Optimize The Role Of Nutritional Management On Involuntary Weight Loss And Diarrhea In Palliative Care.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-121

### EFFECTIVENESS OF MICRONUTRIENT-RICH MULTI-SEED POWDER IN REVERSING POLYCYSTIC OVARIAN SYNDROME (PCOS) AMONG WOMEN OF REPRODUCTIVE AGE (20-45 YEARS)

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#### Introduction

Polycystic Ovary Syndrome (Pcos) Is Characterized By Insulin Resistance And Various Clinical, Hormonal, Biochemical, And Inflammatory Changes In Women<sup>1</sup>. Its Prevalence Among Indian Women Ranges From 3.7% To 22.5%<sup>2</sup>. Micronutrient Deficiencies Are Implicated In Pcos, And Some Studies Suggest That Flax Seeds (Rich In Omega-3), Pumpkin And Sunflower Seeds (Rich In Magnesium And Zinc), And Sesame Seeds (Rich In Essential Fatty Acids, Iron, And Calcium) Can Improve Hormonal Balance And Insulin Resistance<sup>3</sup>. Despite This, The Impact Of A Micronutrient-Rich Multi-Seed Powder On Pcos Symptoms, Including Metabolic, Anthropometric, And Hormonal Outcomes, Has Not Been Thoroughly Explored.

#### Materials / Methods

This Study, Conducted At A Tertiary Care Centre In Central Kerala, India, Employed A Randomized Controlled Trial Design. A Total Of 93 Participants Were Divided Into Three Groups<sup>4</sup> - Experimental Group I (Which Received The Multi-Seed Powder Along With Nutritional Education), Experimental Group Ii (Which Received Only Nutritional Education), And A Control Group (Which Received Medication). A Micronutrient Dense Multi-Seed Powder Was Formulated And Tested For Acceptability And Selected The Most Suitable Variant. Participants In Experimental Group I Consumed 30G Of The Multi Seed Powder Daily For Three Months, Alongside Nutrition Education. Evaluation Of Anthropometric Measurements Biochemical Parameters (Lipid Profile, Total Testosterone), Menstrual Cycle Regularity Was Done In The Three Groups Before And After Intervention.

#### Findings / Results

Anova Results Indicated Significant Differences In Weight (Mean Difference 4.9Kg), Waist Circumference (Mean Difference =1.41Cm), Hip Circumference (Mean Difference =1.26Cm), And Body Fat (Mean Difference 1.27%) In The Experimental Group I Among The Groups. Post Hoc Analysis Revealed That Experimental Group I Had A Greater Reduction In Pcos Symptoms Compared To Experimental Group Ii And The Control Group. Repeated Measures And Generalized Linear Model Analyses Showed Significant Changes In Triglyceride (Tg), Cholesterol And Testosterone Levels In The Multi-Seed Intervention Group Post-Intervention. Both Experimental Groups Had Substantial Weight Changes ( $P < 0.001$ ), Unlike The Control Group. Experimental Group I Experienced A 4.3-Fold Reduction In Menstrual Irregularity Compared To The Control Group And A 9.1-Fold Reduction Compared To Experimental Group Ii ( $P = 0.004$ ).

#### Discussion / Conclusion

Overall, The Multi-Seed Intervention Group Showed Significant Improvements In Anthropometric Measurements, Hormonal Changes, And Menstrual Cycle Regularity.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-130

### EFFECTS OF FISH OIL SUPPLEMENTATION ON BIOCHEMICAL PROFILE OF OBESE CHILDREN: A RANDOMISED CONTROL TRIAL

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#### Introduction

Most Of The Obese Children Become Overweight And Obese Adults, Which Results In Serious Metabolic Complications By Early Adulthood. To Curtail This Major Health Issue, Effective Childhood Obesity Interventions Are Crucial. Therefore, This Study Is Aimed To Determine The Effects Of N3 - Lcpufa Supplementation On Biochemical Profile Of Obese Children.

#### Materials / Methods

A Randomised Controlled Study Was Conducted Among 37 Obese Children Aged 7 – 11 Years Old For The Duration Of 24 Weeks. Treatment And Control Groups Received Lifestyle Behaviour Modification. Treatment Group Also Required To Consume Two Capsules Of Fish Oil Per Day For 16 Weeks. Fasting Blood Samples Were Collected At Baseline, Week 16 And Week 24 To Determine Total Cholesterol, Triglycerides, Tc/Hdl Ratio, Hdl - C, Ldl - C, Glucose And Insulin Status. Univariate Analysis Examined The Treatment Condition Differences At Baseline. Repeated Measures Anova Determined The Differences In Biochemical Profile.

#### Findings / Results

The Biochemical Profile At Baseline Did Not Differ Between The Two Groups. Hdl And Tc /Hdl Ratio Levels In The Treatment Group Were Improved Greater As Compared To The Control Group At Week 16 And Week 24 Intervention With Significant Time Effect ( $P=0.00$ ). Whereas, For The Tg, The Effect Of Time Depends On Whether The Obese Children Received The Fish Oil Or Not ( $P=0.024$ ). Ldl Level For The Treatment Group Was Maintained At The End Of The Study, But The Level Reduced Significantly In The Control Group, [( $P =0.00$ ), Partial Eta Squared = 0.256)].

#### Discussion / Conclusion

Supplementation Of N-3 Lcpufa In The Form Of Fish Oil Capsule Incorporated Into A Lifestyle Behaviour Modification Among Obese Children Resulted In A Greater Increment Of Hdl And Reduction Of Tc/Hdl, Tg And Ldl As Well As Maintaining A Tc Level In Plasma. The Hypotriglyceridemic Effects Of Fish Oil On Plasma Lipid Profile, As Shown In This Study, Might Be Of Importance In Understanding The Health-Related Effects Of N3-Lcpufa In Obese Children.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-02

### USABILITY EVALUATION OF INTERNATIONAL PROPOSED STA

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#### Introduction

Rationale: Administration Of The Blenderized Diet Though A Percutaneous Endoscopic Gastrostomy (Peg) Tube Is Popular Practice In Hen For Children In Japan. Current Study Was Undertaken To Assess The Usability Of A New Enfit Connector Set For The Blenderized Tube Feeding Compared With The Legacy Peg Tube.

#### Materials / Methods

Methods: We Compared The Usability Between Enfit Connector And The Legacy Connector In Terms Of Blenderized Tube Feeding. Three Child Care Givers And Three Nurses Who Used To Administrate The Blenderized Diets Through Peg Tubes Took Part In This Study In Each Three Japanese Children Hospitals. They Administered Three Standard Blenderized Diets Though Enfit Connectors And The Legacy Connectors In Each Hospital And Evaluated Four Usability Factors Such As The Administration Time, The Times Of Hold Changes Of Syringe, The Subjective Sense Of Burden For Administration And The Subjective Usability For Each Connector.

In Addition To The Evaluation Of Usability, We Studied The Physical Properties Of The Blenderized Diets Which Were Used In This Study.

#### Findings / Results

Results: There Were No Statistical Differences In Terms Of Four Usability Factors Between Enfit Connector And The Legacy Connector. The Diameters Of More Than 80% Particles In All Blenderized Diets Were Less Than 600Mm. These Well Prepared Blenderized Diets Consisted Of Fine Particles.

#### Discussion / Conclusion

The Enfit Connector Would Likely Not Show The Remarkable Change In The Usability To Administer The Well Prepared Blenderized Diets. However, When You Use The Badly Prepared Blenderized Diets Containing The Large Particles, There Might Be The Possibility Of Administration Troubles In Enfit Connector.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-04

### MALNUTRITION AND ASSOCIATED RISK FACTORS IN NEWLY DIAGNOSED UPPER GASTROINTESTINAL CANCER BEFORE TREATMENT

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#### Introduction

Upper Gastrointestinal Cancers (Ugic) Related Malnutrition Has Been Found To Harm Cancer Prognosis And Treatment Outcomes. The Study Purposed To Investigate The Prevalence Of Malnutrition And Associated Risk Factors In Newly Diagnosed Upper Gastrointestinal Cancer Before Treatment.

#### Materials / Methods

A Cross-Sectional Study Included Newly Diagnosed Ugic Patients From October 2020 To March 2022. Sociodemographic, Clinical (Type, Stage, And Comorbidities), Functional [Eastern Cooperative Oncology Group (Ecog) Performance Status Scale], Anthropometric Measures [Weight, Height, The Percentage Of Weight Loss Past 1-Month], Biochemical Profiles [Full Blood Count And Albumin], Total Daily Energy Protein Intake, And Malnutrition Level [Subjective Global Assessment (Sga)] Were Assessed.

#### Findings / Results

The Study Recruited 409 Participants, And 92.1% Were Malnourished. The Mean For Age, Weight, Percentage Of Weight Loss Past 1-Month, Total Daily Energy And Protein Intake, Sga Score, And Serum Albumin Of Participants Were 60.3±12.5Years, 57.8±15.1Kg, -8.2±6.0%, 17±5Kcal/Kg/Day, 0.7±0.1G/Kg/Day, 12.2±4.5 And 35.6±6.1G/L Respectively. About 88% And 96% Experienced Vomiting And Dysphasia, Respectively; 51.3% Was Ecog Scale 2. According To A Multiple Linear Regression Test, The Percentage Of Weight Loss Past 1 Month, Serum Albumin, Dyspepsia, Dysphagia, Lymphocytes, And Gender (Male) Were The Significant Risks Factors Related To Malnutrition.

#### Discussion / Conclusion

Nutritional Assessment, Nutrition Therapy, And Malnutrition Prevention Are Significantly Important For Patients With Ugic As Well As Its Consequences For Clinical Outcomes. Nutritional Derangements Are Common Hallmarks Of Gastrointestinal Cancer. Ugic Poses The Highest Risk For The Development Of Malnutrition. Ugic-Related Pathophysiological Changes Induce Nutritional Deterioration, Muscle Wasting, And Impairment Of Functional Status. Unintentional Weight Loss Among Cancer Patients Was Correlated With Metabolism Change, Including Elevated Energy Expenditure, Progressed Catabolism, And Reduced Energy Intake Even Before Treatment Started. Conclusion: Malnutrition In Cancer Has A Wide Range Of Implications, Including A Decrease In Response And Sensitivity To Therapy, Decreased Quality Of Life, Lower Survival, And Increased Care Expenditures. Ugic Patients Are Especially Susceptible To Malnutrition Which Might Cause A Decrease In Therapy Sensitivity, Quality Of Life, And Survival Rate. Currently, The Proposed Risk Factors Associated To Malnutrition Can Assist In Identifying Ugic-Related Malnutrition. Early Nutrition Screening And Assessment Followed With Timely Nutrition Intervention Is Important To Identify Malnutrition And Optimize Nutrition Status Before Treatment.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-09

### THE ASSOCIATION OF OBESITY AND BODY FAT MASS WITH BONE MINERAL CONTENT IN THE IRANIAN GENERAL POPULATION DURING THE YEARS 2020-2023

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#### Introduction

Sufficient Bone Mineral Content (Bmc) Protects Individuals Against Spontaneous And Minor Trauma-Induced Fractures. Today, Obesity And Related Diseases Are Considered As Major Public Health Concerns. We Aimed To Clarify The Impact Of Obesity And Total Body Fat Mass On Bmc.

#### Materials / Methods

This Cross-Sectional Study Recruited A Total Of 18,839 Individuals From The Iranian General Population Between The Years 2020 And 2023. Measurements Of Total Body Fat Mass, Trunk Fat Mass, Right/Left Arm Fat Mass, Right/Left Leg Fat Mass, And Bmc Were Obtained Using Bioelectrical Impedance Analysis. A Body Mass Index (Bmi) Greater Than 25 Is Classified As Overweight/Obesity. For Males, A Waist-To-Hip Ratio (Whr) Exceeding 0.9 Is Considered As Central Obesity, While For Females, A Whr Greater Than 0.85 Is Considered As Central Obesity. Statistical Analysis Was Performed Using Ibm Spss Version 26.0.

#### Findings / Results

The Mean Age Of The Population Was 34±14 Years And 28% Were Male. The Partial Correlation Test Indicated A Strong Negative Correlation Between Bmc And Total Body Fat Mass ( $R=-0.928$ ,  $P<0.001$ ), As Well As Right/Left Arm Fat Mass, Right/Left Leg Fat Mass, And Trunk Fat Mass While Controlling For Weight. Furthermore, Univariate Logistic Regression Showed That Obesity Reduced The Risk Of Bmc Deficiency By 99.5% Compared To The Reference Group ( $OR=0.005$ , 95%  $CI: 0.004-0.008$ ;  $P<0.001$ ).

#### Discussion / Conclusion

It Was Concluded That The Total Body Fat Mass Has A Positive Impact On Bmc By Increasing The Weight-Bearing Of The Bones. However, When Comparing Individuals With The Same Weight, Those With Higher Fat Mass Tend To Have Lower Bmc.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-10

### IMPACT OF A MULTIDISCIPLINARY WARD-BASED INTERVENTION ON NUTRITION CARE FOR HOSPITAL PATIENTS

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#### Introduction

Malnutrition, A Prevalent Issue Among Hospitalized Patients, Often Leads To Increased Complication Rates And Prolonged Hospital Stays. Since April 2016, Our Hospital Has Implemented A Protocol That Involved Nutritional Assessments Conducted By Nurses Or Dietitians Upon Patient Admission. A Pivotal Multidisciplinary Ward-Based Nutrition Intervention (Mwbi) Conference Is Held For Malnourished Patients. This Study Aimed To Assess The Impact And Effectiveness Of This Crucial Mwbi On Nutrition Care For Patients.

#### Materials / Methods

From April 2016, Mwbi Were Conducted Through Weekly Conferences For Malnutrition Patients Attended By Physicians, Nurses, Pharmacists, And Dietitians In Each Ward. Nutritional Support Team (Nst) Intervention Was Implemented If It Was Deemed Necessary Or If No Improvement Was Noted During The Conference. We Retrospectively Analyzed The Patients Who Admitted In Our Hospital Between April 2011 And March 2020 And Divided Two Groups: Before No Intervention Period (Era 1: April 2011 To March 2016) And Intervention Periods (Era 2: April 2016 To March 2020). The Number Of Patients Who Received Nst Interventions, The Total Number Of Nst Discussions For Each Patient And Duration Of Hospital Stay Were Analyzed.

#### Findings / Results

During Era 1, The Number Of Patients Who Received Nst Interventions And The Total Number Of Nst Discussions For Each Patient Were From 481 Cases And 1,641 Times In 2011 To 551 Cases And 2,298 Times In 2015, Increased Annually By An Average Of 4.1% And 9.0%, Respectively. The Average Duration Of Hospital Stay Was 18.2 Days. During Era 2, The Number Of Patients Who Received Mwbi Conferences Increased Annually By An Average Of 19.6% From 1,961 Cases In 2016 To 3,347 Cases In 2019. The Number Of Patients Who Received Nst Interventions And The Total Number Of Nst Discussions For Each Patient Decreased Annually By An Average Of 13.9% And 6.9%, Respectively, From 472 Cases And 2,235 Times In 2016 To 302 Cases And 1,718 Times In 2019. The Average Length Of Hospitalization Was 15.5 Days.

#### Discussion / Conclusion

The Mwbi Facilitated Early Nutritional Support For Patients With Nutritional Issues, Decreased The Number Of Nst Intervention Cases, And Shortened Hospital Stays.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-11

### EXPLORING THE NUTRITIONAL STATUS CHANGES AND PROGNOSIS OF THE RESPIRATORY INTENSIVE CARE UNIT PATIENTS ONE WEEK AFTER ADMISSION

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#### Introduction

Nutrition Support For Critically Ill Patients Could Be Divided Into Enteral Feeding And Parenteral Nutrition. Both Could Be Used Independently Or In Combination. Early Nutritional Support Was Important For Critically Ill Patients. Appropriate Nutritional Support Could Promote Tissue Healing, Meet The High Metabolic Rate Needs In Critical Condition, And Reduce Infection Rates And Mortality.

#### Materials / Methods

This Was A Retrospective Study That Focused On Patients With Enteral Feeding In The Respiratory Intensive Care Unit Of A Medical Center In Central Taiwan, From 2021 To 2022 (N=240). We Included Patients In Icu More Than 3 Days, Those With Terminal Diagnosis Or Hospitalization Days < 7 Days Were Excluded. We Collected The Patient'S Basic Admission Information, Compared Biochemical Data And Energy Intake After One Week Of Nutritional Supported. We Also Classified The Patients Into Two Groups Based On The Plasma Albumin Concentration And Compared Mortality Rates Between The Two Groups.

#### Findings / Results

Of The 240 Patients Included In This Analysis, The Average Age Was 69.3 Years; Apache Ii Score Was 25.9; Bmi:23.9. After One Week Of Nutrition Support, The Concentrations Of Plasma Albumin( $2.8\pm 0.6$  Vs  $2.9\pm 0.5$  G/Dl,  $P=0.175$ ), Enteral Feeding ( $704.0\pm 519.8$  Vs  $1094.6\pm 536.6$  Kcal/D,  $P<0.001$ ) And Total Calorie Intake ( $891.0\pm 442.2$  Vs  $1208.9\pm 492.3$  G/Dl,  $P<0.001$ ) Were Increased. And Then, The Plasma Albumin Concentration Of 2.6 G/Dl Was Used As The Cut-Off Point. We Divided 127 Patients Into Two Groups. The Hemoglobin Concentration In The Group With Plasma Albumin Concentration < 2.6 G/Dl Was Significantly Lower Than That In The Group With Plasma Albumin Concentration  $\geq 2.6$  G/Dl ( $8.4\pm 1.1$  Vs  $10.0\pm 1.8$  G/Dl,  $P<0.001$ ). And Mortality Rate Of Patients With The Concentrations Of Plasma Albumin < 2.6 G/Dl Target Group (7 Patients, 23.3 %) Was Significantly Higher Than Those With The Concentrations Plasma Albumin  $\geq 2.6$  G/Dl Target Group (3 Patients, 3.1 %)( $P = 0.002$ ).

#### Discussion / Conclusion

The Study Suggested That Early Nutritional Support For Patients In The Respiratory Intensive Care Unit Significantly Increased Their Nutrition Status. Additionally, It Was Found That Patients With Higher Concentrations Of Serum Albumin Had Lower Mortality Rates. Thus, Nutrition Support Is Beneficial For The Critically Ill Patients And Should Be Intervened Aggressively.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-12

### RISK FACTORS OF CENTRAL-LINE ASSOCIATED BLOODSTREAM INFECTION AMONG ADULT PATIENTS ON PARENTERAL NUTRITION

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#### Introduction

Although Central Venous Catheter (Cvc) Is Preferred For The Administration Of Parenteral Nutrition (Pn), One Of The Common Complications Is Central-Line Associated Bloodstream Infection (Clabsi), Which Increases Mortality Risk And Healthcare Burden. This Study Aims To Determine The Prevalence And Risk Factors Of Clabsi Among Adult Patients On Pn.

#### Materials / Methods

This Cross-Sectional Study Involves All Adult Patients At Hospital Queen Elizabeth, Sabah Who Received Pn Via Cvc From 1St April 2022 To 31St March 2023. Potential Risk Factors Of Clabsi Were Identified From Medical Records. Prevalence Of Clabsi Was Calculated And Associated Risk Factors Were Determined Using Multiple Logistic Regression.

#### Findings / Results

Of 112 Patients, More Than Half Were Male (N=70, 62.5%) With A Mean Age Of 53.4±15.1. Sixty-Nine Patients (61.6%) Were From The Surgical Ward, While The Remaining Were From The Intensive Care Unit (N=25, 22.3%), Medical (N=9, 8.0%), Haematology (N=5, 4.5%), Gastroenterology (N=3, 2.7%) And Burn Wards (N=1, 0.9%). The Median Pn Duration Was Nine Days (Iqr=5-19). Clabsi Was Present In 25 Patients (22.3%). Of All Potential Factors, Pn Duration Demonstrated A Statistically Significant Association With Clabsi, Whereby Each Additional Day Of Pn Via Cvc Increased Odds Of Clabsi By 1.07 Times (Or=1.07; 95% Ci=1.03-1.12; P<0.001).

#### Discussion / Conclusion

Pn Contributes To The Risk Of Clabsi Due To The Preference Of Microorganisms For Dextrose, Which Explains The Increased Odds Of Clabsi With Prolonged Pn Use. Longer Pn Duration Also Means Longer Catheterization, Exposing Patients To A Higher Risk Of Infection. Clabsi May Warrant Withholding Pn Or Switching To Peripheral Route, Necessitating Reduced Pn Composition Due To Lower Osmolarity Cutoff And Causing Suboptimal Nutritional Status. Infection May Also Delay Interventional Procedures, Increase Length Of Stay And Lead To Further Complications. Since Pn Duration Is One Of The Risk Factors For Clabsi Among Pn Populations, It Should Be Minimized By Evaluating The Need For Pn Continuation Daily And Switching To Enteral Feeding As Early As Possible.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-18

### PROTEIN PROVISION FOR LUPUS NEPHRITIS PATIENT ON DIALYSIS WITH UNRESPONSIVE HYPOALBUMINEMIA: A CASE REPORT

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#### Introduction

Hypoalbuminemia Is One Of The Most Common Nutritional Problems For Lupus Nephritis. Up To 10% Of Lupus Nephritis Patients Develop End-Stage-Renal Disease And Require Dialysis Treatment, Which May Worsen Hypoalbuminemia Condition. To Date, There Is No Recommendation Regarding Protein Provision In Lupus Nephritis Patients With Hypoalbuminemia Who Undergo Hemodialysis. Some Guidelines Recommend Protein Provision As Much As 0,6 G/Kgbw/Day To Inhibit Lupus Nephritis Progression, While Others Suggest A Minimum Of 1,2 G/Kgbw/Day Or Protein Intake To Recover The Amino Acid Loss Caused By Dialysis.

#### Materials / Methods

A 24-Year-Old Female, Diagnosed With Non-Responder Grade Iv Lupus Nephritis, Was Consulted To The Clinical Nutrition Department Due To Persistent Hypoalbuminemia. During Eleven Days Of Hospitalization, The Patient Suffered From Anasarca And Had Already Received Eight Bottles Of 100 MI Albumin 20% Iv, Yet The Albumin Level Never Exceeded 2,5 G/Dl. The Patient'S Kidney Function Also Deteriorated Despite The Immunosuppressive Therapy, So That Patient Had To Underwent Hemodialysis For 2-3 Times A Week.

#### Findings / Results

At First, The Patient Was Nauseous And She Could Only Eat Approximately 0,5 G/Kgbw/Day Of Protein. We Gradually Increased The Protein Intake From 0,8 To 1,2 G/Kgbw/Day In Form Of Oral Diet And Kidney-Specific Oral Nutritional Supplement. The Albumin Level Increased Slightly, But Then The Creatinine Level Was Also Escalated Although She Had Received The Dialysis. We Later Decreased The Protein Intake To 1 G/Kgbw/Day To Slow The Declining Of Kidney Function, Yet We Still Needed The Albumin Infusion To Maintain The Albumin Level. The Patient Was Finally Able To Discharged From Hospital With Improvement Of Anasarca And Albumin Level Of 2,5 G/Dl.

#### Discussion / Conclusion

A 1 G/Kgbw/Day Of Protein Intake Could Be Considered For Patients With Lupus Nephritis Who Suffered From Hypoalbuminemia And Underwent Hemodialysis. This Moderate Amount Of Protein Was Expected To Maintain The Albumin Level But Not To Overburden The Kidney Function.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-19

### AN UNEXPECTED CASE OF SEVERE SCURVY IN A CHEMOTHERAPY PATIENT WITH LYMPHOMA

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#### Introduction

Vitamin C Deficiency, Also Known As Scurvy, Is An Uncommon Disease In The Present Day. However, Certain Populations Remain At Risk, Such As Those With Severe Dietary Restrictions, Poor Nutritional Intake, Or Malabsorption. Due To Its Rarity, Diagnosis May Be Delayed, Leading To Severe Complications.

#### Materials / Methods

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#### Findings / Results

We Present A Case Of A 70-Year-Old Man With Diet-Controlled Type 2 Diabetes And Diffuse Large B-Cell Lymphoma Undergoing Chemotherapy. He Was Admitted With Fever And Shortness Of Breath And Was Subsequently Diagnosed With Rituximab-Induced Pneumonitis. Examination Revealed Gingivitis, Ecchymosis And Perifollicular Petechiae On The Upper Thighs, And Dry, Scaly Skin. Dietary Recall Indicated An Intake Of Around 1,100 Kcal (22.7 Kcal/Kg) And 50 Grams Of Protein (1.0 G/Kg) Per Day, Devoid Of Fresh Fruits And Vegetables Due To Concerns Regarding Blood Sugar Levels And Fear Of Microbial Contamination. Laboratory Tests Showed Normochromic Normocytic Anemia, Normal Platelet Count And Coagulogram, And Low Albumin. Vitamin C Deficiency Was Suspected, And Blood Level Was Taken, However, Treatment Was Started Without Delay. The Patient Received A Single Dose Of 1000 Mg Of Intravenous Vitamin C, Followed By 500 Mg Of Oral Vitamin C Twice Daily. Due To Severe Malnutrition, Enteral Nutrition Via A Nasogastric Tube Was Initiated, And Slowly Titrated To Goal. The Diagnosis Of Scurvy Was Confirmed With A Vitamin C Level Of 0.6 Mg/L (3.4 Mmol/L; Normal Range 2 – 14 Mg/L). After Two Weeks Of Treatment, The Dermatological Lesions Significantly Improved, And He Was Discharged Home With 500 Mg Of Oral Vitamin C Per Day And An Appropriate Enteral Feeding Regimen.

#### Discussion / Conclusion

Scurvy, Though Seemingly Historic, Can Still Affect Patients In The Era Of Modern Medicine. This Case Highlights How The Combination Of Cancer Cachexia And Iatrogenic Dietary Restrictions Can Lead To Poor Intake And Risk Of Vitamin C Deficiency. Cancer-Induced Antioxidant Depletion And Chemotherapy-Induced Oxidative Stress May Also Contribute. Maintaining A Low Threshold For Checking And Repleting Vitamin C Levels In Patients With Malignancies, Especially Those Undergoing Chemotherapy, Is Recommended. Early Recognition And Intervention Can Prevent Severe Complications Associated With This Potentially Fatal Disease.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-21

### OCCURRENCE AND RISK FACTORS OF REFEEDING SYNDROME IN ADULT PARENTERAL NUTRITION PATIENTS: A RETROSPECTIVE STUDY AT A MALAYSIAN TEACHING HOSPITAL

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#### Introduction

Refeeding Syndrome (Rs) Is A Life-Threatening Metabolic Complication Often Diagnosed After Refeeding Episodes In Severely Malnourished Parenteral Nutrition (Pn) Patients Associated With Severe Electrolyte And Fluid Disturbances. This Study Aimed To Determine The Occurrence, Severity And Risk Factors Causing The Complication In Pn Patients.

#### Materials / Methods

A Retrospective Observational Study Employing A Universal Sampling Method Was Conducted From October 2023 To December 2023 At Hospital Canselor Tuanku Muhriz (Hctm). Data Were Collected And Analyzed For Adult Patients Referred And Indicated To Initiate Pn Treatment For More Than 48 Hours Between July 2022 To July 2023 At Hctm.

#### Findings / Results

Ninety Patients Were Included, With 30 (33.3%) Developing Rs. Out Of This 30, 53.3% (N=16) Had Mild Rs And 23.3% (N=7) Had Moderate And Severe Rs Respectively. There Was A Statistically Significant Correlation Between Pre-Existing Electrolyte Derangements And Rs Occurrence (P = 0.018). Notably, Phosphate Levels Exhibited The Most Pronounced Decline Post-Pn Initiation (43%), Followed By Potassium Levels (19%) And Magnesium (17%). These Electrolyte Disturbances Primarily Occurred Within The Initial 24 Hours Post-Pn Initiation. There Was No Statistically Significant Association Between Bmi, Duration Of Fasting, Unintentional Weight Loss, And History Of Medicines Used With Rs, However, The Likelihood Of Rs Occurring Was Higher In Patients Who Were Fasting More Than 5 Days (Or 2.5, 95% Ci 0.3 To 18.5) And In Patients With  $\geq 10\%$  Unintentional Weight Loss (Or 1.6, 95% Ci 0.4 To 6.8).

#### Discussion / Conclusion

Rs Is Common Among Hospitalised Adults Undergoing Pn, Usually With Mild Severity. Pre-Existing Electrolyte Abnormalities, Especially Phosphate Levels, Strongly Predict Rs. Prospective Studies With Larger Sample Sizes Could Reflect The Association Between Risk Factors And Rs More Accurately In Our Population.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-26

### IMPROVING OPERATIONAL EFFECTIVENESS VIA QUALITY AUDITING: A STUDY IN CONTINUOUS IMPROVEMENT

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#### Introduction

To Improve Outcomes In Critical Care And Shorten The Turnaround Time (Tat) Between The Doctor'S Prescription And The Start Of En, The First Enteral Feed (Fef) Protocol Was Created. A Tat Of 592±492 Minutes Was Shortened To 111±72 Minutes After The Initiation Of The Protocol. To Ensure That The Tat Remained Under 180 Minutes, This Study Aimed To Continuously Monitor And Identify Any Hindrances In The Present Protocol In Place As A Continuous Quality Project.

#### Materials / Methods

To Make Sure The System Operates Without Delays, An Audit Of The Established Protocols Is Essential. The Fef Protocol Successfully Helped In Reducing The Tat Of The Initiation Of En In Critically Ill Patients. To Ensure Adherence To The Protocol For Fef Delivery And Identify Any Hindrances In The Delivery System, A Continuous Audit Was Conducted. 45 Observations Were Made Over A Period Of 3 Months. The Interval From The Prescription Of The Doctor'S Orders To The Commencement Of Fef Administration Was Determined.

#### Findings / Results

Before The Fef Protocol Was Initiated, The Tat From The Doctor'S Prescription To The Actual Initiation Of Ef Was 592±492 Minutes. As Per The Audit Done Over A Period Of 3 Months, The Tat Observed Were 107±40 Minutes, 167±82 Minutes, And 114±39 Minutes Which Proved To Be Lower Than The Tat Before The Initiation Of The Protocol. This Audit Aimed To Ensure Compliance With A Tat Target Of Under 180 Minutes. However, In The Root Cause Analysis Deviations In Tat Observed Were Linked To Higher Turnover Of Nursing Staff And Gaps In The Hospital'S Medication Delivery System.

#### Discussion / Conclusion

The Fef Protocol Was Successful In Reducing The Tat In The Administration Of Enteral Feeds In Critically Ill Patients. It Can Improve The Nutritional Status & Prognosis Of Critical Patients, Improve The Feeding Effect, And Reduce The Incidence Of Complications. This Audit Highlights The Critical Need For Staff Training And Continuous Ongoing Workflow Monitoring To Ensure The Seamless Operation Of The System.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-28

### NUTRITIONAL CONUNDRUM IN FEEDING MALNOURISHED ELDERLY WITH SEVERE GLYCOGEN DEPLETION: A CASE STUDY

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#### Introduction

The Aging Process Involves Changes In Physiological, Pathological, Social, And Psychological Conditions Of A Person That Lead To Inadequate Dietary Intake, And Failure To Meet Energy And Protein Requirements In Elderly. The Physiological Responses To The Total Or Near-Total Absence Of Nutrition Include Series Of Metabolic Alterations Decrease Metabolic Rate, Maintain Glucose Homeostasis, Conserve Body Nitrogen, And Increase The Use Of Adipose Tissue Triglycerides To Meet Energy Needs.

#### Materials / Methods

##### Case Description

Long-Term Hospitalized Elderly Male Diagnosed With Pulmonary Tuberculosis, Anemia And Hyponatremia. Clinical Presentation Included Depleted Muscle Glycogen Store And Chronic Malnutrition Requiring Regular Feeding For Increased Needs Of Energy And Protein And Stabilization Of Blood Sugar. Nutrition Diagnosis Derived Was Inadequate Energy Intake Related To Decreased Ability To Consume Sufficient Energy As Evidenced By Estimated Energy Intake From Diet Less Than Requirement And Limited Ability To Independently Consume Foods/Fluids (Need Feeding Assistance). Nutritional Intervention Aimed To Provide Adequate Energy And Protein Through Hospital Diet And Enteral Nutrition Support To Improve Nutritional Status And Associated Outcomes. Energy Prescription Of 1260Kcal/Day And 1.24G Protein/Kg/Day Delivered Enteral Nutrition Via Nasogastric Feeding. Dietary Therapy Through Nutritional Manipulation With The Use Of Continuous Or Frequent Intra-Gastric Feeding To Prevent Hypoglycemia And Improve Metabolic Dysfunction. Tolerant Of Enteral Nutrition Infusion To Improve Energy And Protein Intake With Periodic Monitoring Of Lean Muscle Mass And Fat Mass Store, Nutritional Biomarkers And Blood Sugar Trend.

#### Findings / Results

Case Description - Long-Term Hospitalized Elderly Male Diagnosed With Pulmonary Tuberculosis, Anemia And Hyponatremia. Clinical Presentation Included Depleted Muscle Glycogen Store And Chronic Malnutrition Requiring Regular Feeding For Increased Needs Of Energy And Protein And Stabilization Of Blood Sugar. Nutrition Diagnosis Derived Was Inadequate Energy Intake Related To Decreased Ability To Consume Sufficient Energy As Evidenced By Estimated Energy Intake From Diet Less Than Requirement And Limited Ability To Independently Consume Foods/Fluids (Need Feeding Assistance). Nutritional Intervention Aimed To Provide Adequate Energy And Protein Through Hospital Diet And Enteral Nutrition Support To Improve Nutritional Status And Associated Outcomes. Energy Prescription Of 1260Kcal/Day And 1.24G Protein/Kg/Day Delivered Enteral Nutrition Via Nasogastric Feeding. Dietary Therapy Through Nutritional Manipulation With The Use Of Continuous Or Frequent Intra-Gastric Feeding To Prevent Hypoglycemia And Improve Metabolic Dysfunction. Tolerant Of Enteral Nutrition Infusion To Improve Energy And Protein Intake With Periodic Monitoring Of Lean Muscle Mass And Fat Mass Store, Nutritional Biomarkers And Blood Sugar Trend.

#### Discussion / Conclusion

Severe Glycogen Depletion Leads To Muscle Catabolism Necessary For Gluconeogenesis, Eventually Resulting In Cachexia Which Poses Severe Metabolic Challenges And Poor Survival In Severely Malnourished Patients. Case Exemplifies Importance Of Adequate Regular Nutrition Through Individualized Intervention To Achieve Desired Outcomes For Beneficial Malnutrition Management With Depleted Muscle Glycogen Store Contributed From Chronic Malnutrition In Elderly Requiring Assistance In Daily Living. Enteral Nutrition Resulted In A Higher Energy And Protein Intake And Better Quality Of Life Than Regular Dietary Modifications. However, Dietary Counselling And Modifications May Be Better Accepted For Long Duration, And Are Cheaper, Thus, Proposed Primarily, Until They Are Not Sufficient To Reach Nutritional Goals.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-29

### A ONE-YEAR RETROSPECTIVE AUDIT ON NUTRITIONAL SCREENING OF GENERAL SURGICAL PATIENTS ON ADMISSION TO HOSPITAL RAJA PERMAISURI BAINUN, IPOH

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#### Introduction

Malnutrition In Surgical Patients On Admission Is Poorly Recognized As It Is Not Routinely Screened On Admission. Late Intervention Will Result In Poor Rehabilitative Recovery Leading To Poor Clinical Outcomes And Prolonged Hospitalization. To Address This Issue, A Pilot Project Was Initiated By The Nutritional Support Team (Nst) Of Hospital Raja Permaisuri Bainun (Hrpb), Ipoh, To Actively Screen Surgical Patients For Malnutrition. Nst Hrpb Team Operates Without Funding Or Subsidies And Aims To Improve Patient'S Nutritional Outcomes.

#### Materials / Methods

Nutritional Screening Was Performed On All Admitted Surgical Patients, Both Elective And Emergency Using The Nrs 2002 Screening Tool Incorporated Into The Admission Clerking Protocols From 1St January 2023 To 31St December 2023 (12 Months).

#### Findings / Results

There Was A Total Of 821 Surgical Patients Screened For Malnutrition During This Period. Majority Of The Patients, 73.3% (602), Were At Low Risk Of Malnutrition. 152 (18.5%) Were Categorized As Moderate Risk And 67 (8%) Were At High Risk Of Malnutrition. The Age Distribution Ranged From 13 To 94 Years With A Mean Of 62 Years.

3.9% (32) Were Underweight, 30.6% (249) Had Normal Bmi, 26.2% (213) Were Pre-Obese, 20.4% (166) Were Obese Type 1, 14% (114) Were Obese Type 2, And 4.6% (38) Were Obese Type 3. The Weight Of Patients Ranged From 16Kg To 200Kg, With A Mean Of 52Kg, While The Height Showed A Normal Distribution With A Mean Of 163Cm.

Malnourished Patients Experienced Longer Hospital Stays, Delayed Wound Healing, And Higher Risks Of Post-Surgery Complications. Those At High Risk Of Malnutrition Stayed Between 14 To 38 Days, Averaging 19 Days, Primarily Due To Wound Complications, Nosocomial Infections, And Feeding Intolerance. However, The Study Encountered Limitations Such As Data Quality Issues And Technical Errors During Collection, Leading To A Dataset That May Not Fully Represent All Surgical Patients For The Year.

#### Discussion / Conclusion

This Audit Emphasized The Importance Of Early Recognition Of Malnutrition And Proactive Screening On Admission To Facilitate Early Nutritional Interventions, Improving Patient Outcomes And Reducing Hospital Stays.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-30

### EFFECT OF GLUTAMINE SUPPLEMENTATION FOR A DIAGNOSED PATIENT WITH CELIAC DISEASE WITH VILLOUS ATROPHY, PRESENTED WITH UNRESPONSIVE CHRONIC DIARRHOEA

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#### Introduction

Celiac Disease, Characterized By Gluten-Induced Immune-Mediated Enteropathy, Often Presents With Chronic Diarrhoea Due To Villous Atrophy. This Case Report Investigates The Efficacy Of Glutamine Supplementation In A Diagnosed Patient With Celiac Disease With Villous Atrophy Experiencing Persistent Chronic Diarrhoea. Understanding The Potential Impact Of Glutamine On Symptoms And Villous Structure May Offer Insights Into Improved Management Strategies.

#### Materials / Methods

##### Case Description

A 57-Year-Old Ayurvedic Female Doctor, Diagnosed With Celiac Disease Two Years Back, Presents With A History Of Unresolving Chronic Diarrhoea, Despite Adherence To The Gluten Free Diet. She Had A Significant Weight Loss, And Multiple Complications. She Had Watery Stools With Undigested Food Particles, And Perianal Soreness. She Experienced Lower Limb Swelling, Muscle Wasting, Hair Loss, And Generalized Weakness. A Detailed Dietary History Revealed A Gluten Free Rice-Based Diet With A Low Intake Of Animal-Based Protein. Lactose Intolerance Was Noted. Physical Examination Showed Muscle Wasting, Pallor, And Lower Limb Oedema. Severely Malnourished According To The Glim Criteria, Evident By Bmi <18.5 Kg/M<sup>2</sup>, >20% Weight Loss Beyond 6 Months, Significant Muscle Mass Loss With Chronic Diarrhoea And Chronic Reduction Of Food Intake. Recent Small Intestinal Biopsy Confirmed Villous Atrophy. Anaemia And Low Albumin Levels Were Noted. Her Functional Capacity Was Significantly Compromised.

Initially, She Received Iv Fluids, Iv Albumin, And Antimotility Agents. Dehydration Was Managed And The Gut Was Supported. Gluten-Free Diet Was Continued. Lactose And High Fodmap Foods Were Temporarily Excluded. Nutritional Support Started With Energy Provision At 20 Kcal/Kg/D, Progressing To 40 Kcal/Kg/D, With 20% Protein, Considering Refeeding Syndrome. Micronutrient Supplementation Was Doubled.

Following Inadequate Response To Initial Therapy, One Week Later She Was Prescribed Oral Glutamine At 0.5Mg/Kg/D.

#### Findings / Results

Responding Well, Glutamine Was Continued For Three Weeks. After This Period, She Could Tolerate Processed Dairy Foods, Progressing To Whole Dairy. Remarkably, Her Chronic Decade-Long Diarrhoea Completely Resolved With The Supportive Treatment Of Oral Glutamine.

Within 1 Month The Patient Gained 2 Kg Of Weight. Her Quality Of Life Improved Remarkably.

#### Discussion / Conclusion

Glutamine Can Enhance The Recovery Of Villous Atrophy. It Is Important To Consider Glutamine Supplementation For Villous Atrophy When Treating Celiac Disease Patients With Unresponsive Diarrhoea.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-31

### DOES PROVISION EARLY ENTERAL NUTRITION VS. DELAYED ENTERAL NUTRITION IMPACT CLINICAL OUTCOMES IN ADULT CRITICALLY ILL PATIENTS?

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#### Introduction

Early Enteral Nutrition (Een), Generally Initiated Within The Initial 24-48 Hours After Admission To The Intensive Care Unit (Icu), Is Recommended For Patients Who Are Unable To Tolerate Oral Intake. This Study Aims To Investigate The Impact Of Een On Critically Ill Patients And The Development Of Customized Guidelines In Korea.

#### Materials / Methods

We Compared The Clinical Outcomes Of A Group That Received Een Initiated Within 48 Hours And A Group That Received Delayed Enteral Nutrition (Den) In Studies Involving Adult Critically Ill Patients. A Literature Search Was Conducted For Relevant Articles In Pubmed, Embase, The Cochrane Library, And Koreamed, Which Is A Domestic Database, From January 2000 To June 2023. We Identified Five Studies By Existing Systematic Literature Reviews And Meta-Analyses. Our Review Included Guidelines And Recent Studies From Both Domestic And International Sources Focused On Mortality, Hospital Length Of Stay, Infection Rates, And Medical Costs.

#### Findings / Results

Overall, Results Showed Clinical Outcomes Had Improved In The Group Receiving Een Compared To The Group Receiving Den. The In-Hospital Mortality Rate Was Significantly Lower In The Een Group Compared To The Late Nutrition Group. The Total Length Of Hospital Stay Was Shorter In The Een Group Compared To The Den Group. These Results, Showing A Decreased In Mortality And Infectious Complications, Were Confirmed By Two Meta-Analyses. However, The Presence Of Very Low-Certainty Evidence For Mortality Outcomes Emphasizes The Need For Caution. Also, Een Appeared To Result In Significant Cost Savings Compared To Den.

#### Discussion / Conclusion

Een Is Associated With Improved Clinical Outcomes, Including Reduction In Mortality, Infection Rates, Length Of Hospital Stay, And Medical Costs. Further Research Using Domestic Data Is Needed To Develop Een Guidelines Tailored To The Korean Healthcare System.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-38

### HOME HEALTH CARE ISSUES WITH ENTERAL NUTRITION

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#### Introduction

The Advent Of Sophisticated Medical Technology Is Prompting A Paradigm Shift Away From Prolonged Hospitalization And Towards Medical Care Delivered In The Comfort Of One'S Own Home. This Is Particularly Evident In Japan, Where The Population Is Aging And Enteral Nutrition Is Required For Elderly Patients With Feeding And Swallowing Disorders And Chronically Ill Patients Who Require Care At Home. While Enteral Nutrition Has The Advantage Of Reducing Hospitalization Costs And Improving Quality Of Life By Allowing Patients To Spend More Time At Home With Their Families, The Difficulty Of Managing It At Home Represents A Significant Challenge. Therefore, We Have Undertaken To Clarify The Challenges Currently Facing Enteral Nutrition At Home And The Measures Being Taken To Address Them.

#### Materials / Methods

A Search Was Conducted Using The Japan Medical Abstracts Society, With The Words "Home" And "Enteral Nutrition" (As Of June 2024). A Total Of 138 Abstracts That Met The Intent Of The Study Were Selected For Analysis By Searching Original Articles Since 2014. Text Mining Analysis Was Conducted Using Kh Coder, And Frequent Words And Co-Occurrence Relationships Were Analyzed Based On Network Diagrams.

#### Findings / Results

The Most Frequently Occurring Words Were "Home," "Nutrition," "Patient," "Medical Care," "Stomach," And "Intake." In The Co-Occurrence Network, The Words Were Grouped Into Six Subcategories. The Following Titles Were Identified: "Management Considerations In Home Therapy," "Cases Of Enteral Nutrition And Gastroplasty," "Enteral Nutrition With Ventilator," "Medical Support And Family Care In Home Nursing," "Swallowing Dysfunction And Resumption Of Oral Intake," And "Enteral Nutrition For Low Birth Weight Infant Growth."

#### Discussion / Conclusion

Enteral Nutrition At Home Is A Beneficial Medical Option For Many Patients And Children. However, There Are Numerous Challenges Associated With Assessing Digestive And Swallowing Function, Changing To Other Nutritional Methods, And Management. It Was Hoped That Home Nurses Would Establish An Appropriate Support System With Dietitians And The Medical Team, As Well As Educate Families About Proper Knowledge And Care.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-39

### A SINGLE CENTRE EXPERIENCE OF NUTRITION SUPPORT IN COMPLEX ENTEROCUTANEOUS FISTULA CASE SERIES

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#### Introduction

About 75-85% Of Enterocutaneous Fistulas (Ecf) Happened Following Gastrointestinal Surgery. Enterocutaneous Fistulas Can Be Treated Non-Operatively In Selected Cases With Adequate Nutritional Support Along With Advanced Wound Care And Sepsis Control. Cases That Do Not Respond To Non-Operative Management Also Require The Same Algorithm Of Management Towards Eventual Surgical Anatomical Reconstruction. Here, We Report A Case Series Of Iatrogenic Small Bowel Enterocutaneous Fistula Which Were Successfully Managed With Good Nutritional Support Along With Wound Care And Pharmacological Therapy.

#### Materials / Methods

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#### Findings / Results

Case 1 Is Elderly 69-Year-Old Lady Who Had Ecf Post Cholecystectomy. Case 2 Features A 45-Year-Old Gentleman Who Had Ecf Post Trauma And Case 3 Demonstrates A Young 13-Year-Old With Ecf Post Perforated Meckel'S Diverticulum Repair. Patients Were Reviewed Daily By A Dedicated Nutritional Support Team. All Patients Were Evaluated Using Nutritional Screening Scores And Risks Of Refeeding Syndrome (Rfs) Were Stratified. Our Strategy Includes Starting Total Parenteral Nutrition With 50% Of Targeted Calories At 12-15 Kcal/Kg/Day, Reaching Full Target Of 25-30 Kcal/Kg/Day By First Week And Introduction Of Enteral Nutrition Within The First Week. Prevention Of High Stoma Output Was Achieved By Fasting And Medications. Tpn Was Eventually Weaned Off. Eventually, All Cases Achieved Spontaneous Closure Of Ecf.

#### Discussion / Conclusion

Ecf Secondary To Surgical Complications Tend To Respond Well To Conservative Treatment. In Our Centre, All Patients Were Managed By The Nutritional Support Team With A Personalised Nutrition Plan. Hence Tpn-Related Complications Can Be Detected Early. Additives Such Glutamine, Electrolytes, Trace Elements And Vitamins Are Proven To Be Vital. Trained Stoma Nurses Isolate The Fistula From The Surrounding Wound With Negative Pressure Dressing. The Role Of Early Initiation And Optimisation Of Antimotility And Somatostatin Also Helped In Controlling The Output. We Establish Early Enteral Nutrition By The First Week Using Clear Fluids To Maintain Normal Gut Mucosa Integrity. In Subsequent Follow Up, No Recurrence Was Identified. We Acknowledge A Larger Sample Size Is Needed To Ascertain The Benefits Of Our Practice In Treating Enterocutaneous Fistulas.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-40

### THE SALVATION OF DISUSED SMALL INTESTINE: A CASE OF INTEGRATED THERAPY FOR POSTOPERATIVE GASTROCOLIC FISTULA

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#### Introduction

Gastrocolic Fistula (Gcf) Is A Rare Complication Following Gastric-Colonic Surgery, Which Can Result In Small Bowel Disuse And Severe Malnutrition, Posing Challenges For Surgical Repair.

#### Materials / Methods

In This Case, We Employed A Combination Of Jejunal Nutrition Tube Feeding And Fecal Microbiota Transplantation (Fmt) To Enhance The Patient'S Nutritional Status, Restore Disused Small Bowel Digestive Absorption Function, And Successfully Facilitate Subsequent Surgical Repair.

#### Findings / Results

The Patient Showed Significant Improvement In Nutritional Status And Gut Microbiota Diversity Following The Therapy, Enabling Successful Surgical Resolution Of The Fistula.

#### Discussion / Conclusion

Establishing A Jejunal Nutrition Route Can Effectively Reduce The Flow Of Fistula In Gcf, While Fmt Can Improve The Digestive Absorption Function Of Disused Small Intestine. Correcting Malnutrition Is Essential To Ensuring The Success Of Surgical Repair.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-41

### POSTOPERATIVE MEDICAL NUTRITION THERAPY IN PATIENT WITH ASCENDING COLON ADENOCARCINOMA, SEVERE MALNUTRITION, AND PRO CHEMOTHERAPY: A CASE REPORT

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#### Introduction

Colorectal Cancer Is The Fourth Leading Cause Of Cancer-Related Deaths With 700,000 Deaths Annually. Common Symptoms Experienced By Patients Include Nausea, Vomiting, Abdominal Pain, And Changes In Bowel Habits. About 45% Of Patients Will Experience Weight Loss Averaging 7 Kg And An Increased Risk Of Developing Cancer Cachexia. Malnourished Conditions Will Increase Therapy Toxicity, Reduce Quality Of Life, And Contribute To 10–20% Of Cancer Patient Deaths. The Espen For Cancer Guideline Recommends Providing 25–30 Kcal/Kg Bw/Day Energy To Maintain Nutritional Status And 35–50 Kcal/Kg Bw/Day For Weight Gain, Protein Above 1 G/Kg Bw/Day, And Fats At 0.7–1.9 G/Kg Bw/Day Or 60%–80% Of Total Energy Expenditure.

#### Materials / Methods

A 19-Year-Old Male, Diagnosed With Severe Malnutrition (Body Mass Index 14.6 Kg/M<sup>2</sup>), Cancer Cachexia, Post-Relaparotomy Due To Leakage Anastomosis Ileo-Colon Transversum With Double Barrel Stoma Et Causa Adenocarcinoma Of The Ascending Colon. Oral Intake Was Decreased Due To Loss Of Appetite, Nausea, Vomiting, And Abdominal Pain. The Patient Showed Loss Of Muscle Mass, Subcutaneous Fat, And Wasting Of The Extremities. Laboratory Findings Were Anemia (10.2 G/Dl), Leucocytosis (33,100 Mm<sup>3</sup>), Hypoalbuminemia (2.2 G/Dl), And Hyponatremia (131 Mmol/L). Based On The Body Composition Examination, The Results Were As Follows; Body Fat Mass 7.1%, Visceral Fat 0.5, Muscle Mass 30.1%, Ffmi (Fat-Free Mass Index) 13 Kg/M<sup>2</sup>. Nutritional Therapy Monitoring Was Aim To Prepare The Patient For Chemotherapy. Medical Nutrition Therapy Was Initially Given 420 Kcal And Gradually Increased To 2300 Kcal, Protein 0.7-2 G/Kg Bw/Day (Brain Chain Amino Acid (Bcaa) 11-14 G/Day), And Fats 1.1 G/Kg Bw/Day.

#### Findings / Results

Patient Was Discharged After 29 Days With Clinical Improvement In Body Weight (Imt 16 Kg/M<sup>2</sup>), Body Composition (Body Fat Mass 12.8%, Visceral Fat 1, Muscle Mass 39.3%, Ffmi 16.1 Kg/M<sup>2</sup>), And Laboratory Examination In Haemoglobin 11.6 G/Dl, Leukocytes 8,420 Mm<sup>3</sup>, Albumin 3.2 G/Dl, And Sodium 140 Mmol/L

#### Discussion / Conclusion

Malnourished Conditions In Colorectal Cancer Will Increase Therapy Toxicity, Reduce Quality Of Life, And Contribute To 10-20% Of Cancer Patient Deaths. Specific Nutritional Therapy Is Needed To Reduce Inflammation Or Hypermetabolic And Prevent The Side Effects Of Chemotherapy, Proper Monitoring And Nutritional Education Will Provide Optimal Outcomes.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-42

### THE ANTI-INFLAMMATORY EFFECTS OF OMEGA-3 SUPPLEMENTATION IN A PATIENT WITH AUTOIMMUNE ENCEPHALITIS: A CASE REPORT

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#### Introduction

Autoimmune Encephalitis Is A Serious Condition Requiring Intensive Care, Including Adequate Nutritional Support To Improve Patient Recovery. Omega-3 Is Known For Its Potential Anti-Inflammatory Effects, But Its Use In The Context Of Autoimmune Encephalitis Has Not Been Extensively Studied.

#### Materials / Methods

A 29-Year-Old Male Patient Diagnosed With Autoimmune Encephalitis Was Treated In The Icu. Nutritional Therapy Was Provided Based On The Total Energy Requirement At 30 Kcal/Kg Body Weight, Protein At 1.7 G/Kg Body Weight, And Omega-3 3 G/Day To Help Reduce Inflammation And Achieve Therapeutic Goals. The Patient Received Oral Nutritional Supplementation, Containing 3 Grams Of Omega-3, At A Dose Of 2X200 MI Per Day For 18 Days. The Effectiveness Of The Intervention Was Assessed By Measuring C-Reactive Protein (Crp) And Procalcitonin (Pct) Levels Before And After The Omega-3 Supplementation. After The Intervention, Crp Levels Decreased From 20.1 Mg/L To 11.7 Mg/L, And Pct Levels Fell From 1.28 Ng/MI To 0.35 Ng/MI. The Patient Was Discharged On Day-52 Of Icu.

#### Findings / Results

The Reduction In Inflammatory Status During The Intervention With Omega-3 Supplementation Is Consistent With The Study Conducted By Ouagueni Et Al. Omega-3 Is Able To Reduce Inflammatory Markers In Patient With A Dose Of 3 G/Day.

#### Discussion / Conclusion

Omega-3 Supplementation Helped Reduced Inflammation In A Critically-Ill Patient With Autoimmune Encephalitis. Further Studies With Larger Sample Sizes And Longer Observation Periods Are Needed To Confirm These Findings And Understand The Mechanisms Of Omega-3 In The Context Of Autoimmune Encephalitis.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-45

### ENTERAL FEEDING: THE REFEEDING RISK OFTEN OVERLOOKED

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#### Introduction

Refeeding Syndrome, Characterized By Metabolic Disturbances Upon Reinitiating Nutrition In Malnourished Patients, Is A Well-Documented Concern In Clinical Practice. While Commonly Anticipated During Parenteral Nutrition Initiation, Its Occurrence With Enteral Feeding Is Often Underestimated. We Present A Case Highlighting The Challenges And Consequences Of Overlooking Refeeding Syndrome In A Patient With Advanced Pancreatic Cancer And Upper Gastrointestinal Obstruction.

#### Materials / Methods

Case Report

#### Findings / Results

Case Description: A 56-Year-Old Man With Newly Diagnosed Pancreatic Carcinoma With Obstruction Due Mass Effect Presented With A Two-Month History Of More Than 50% Reduction In Oral Intake, Non-Bilious Post-Prandial Vomiting, And Early Satiety. Physical Examination Revealed Temporalis And Small Muscle Wasting, Generalized Weakness, And Difficulty Standing. Further Investigations Confirmed A Locally Advanced Pancreatic Tumor Causing Upper Gastrointestinal Obstruction. Due To High Risk Of Refeeding Syndrome, Initial Management Planned Low Caloric Parenteral Nutrition Of 10Kcal/Kg/Day. However, A Successful Nasojejunal Tube Placement During Upper Endoscopy Prompted A Shift To Enteral Feeding.

Despite Intentions To Start Cautiously, The Patient Received High Caloric Enteral Nutrition Of Total 22Kcal/Kg/Day, Leading To The Development Of Refeeding Syndrome Characterized By Electrolyte Imbalances Of Phosphate Depletion And Cardiac Arrhythmias.

#### Discussion / Conclusion

Discussion: In Managing Patients Like Ours—Bedbound, Cachectic, And Nutritionally Compromised—Clinicians Often Prioritize Addressing Refeeding Syndrome With Parenteral Nutrition But Neglect Similar Precautions With Enteral Feeding. This Oversight Can Result In Serious Complications, Including Potentially Fatal Outcomes. The Abrupt Influx Of Nutrients From Enteral Feeds Can Overwhelm The Body'S Metabolic Capacity, Especially In Patients With Depleted Lean Body Mass And Impaired Physiologic Reserves.

Conclusion: This Case Underscores The Critical Need For Heightened Awareness And Proactive Management Of Refeeding Syndrome In All Forms Of Nutritional Support, Including Enteral Feeding. A Structured Approach Involving Gradual Caloric Advancement, Close Monitoring Of Electrolytes, And Interdisciplinary Coordination Is Imperative To Mitigate These Risks And Improve Patient Outcomes.

In Conclusion, Overlooking The Potential For Refeeding Syndrome During Enteral Feeding Initiation Can Have Grave Consequences, In Which This Case Patient Had Significant Phosphate Depletion Complicated With Cardiac Arrhythmia. Clinicians Need To Be Vigilant In Identifying Potential At Risk Patients And Integrate Standard Management Protocols To Ensure Safe And Effective Nutritional Rehabilitation For Vulnerable Patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-46

### NURSING EXPERIENCE OF CARING FOR A CRITICALLY ILL PATIENT WITH ECMO

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#### Introduction

Accident Injuries Ranked Sixth Among The Top Ten Causes Of Death In The Country, With A Mortality Rate As High , Making It The Leading Cause Of Death For People Aged 15-24. Among Them, Accident Injury Mortality Rates Are Highest Among Transportation Accidents (Including Motor Vehicle Accidents) Reaching 43.1% (Statistics Division Of The Ministry Of Health And Welfare, 2022). Trauma Often Causes Damage To Multiple Systems, And The Clinical Treatment Of Trauma Requires More Time Than Other Diseases. The Patient'S Life, Death, Recovery, Or Disability May Often Be Determined In Just A Few Minutes (Lu, Chen, And Han, 2014). This Patient Was Admitted To The Hospital With Clear Consciousness And Extremely Unstable Vital Signs. After Being Admitted To The Intensive Care Unit For About 3 Hours, His Consciousness Changed And His Heart Stopped Suddenly. After First Aid, His Vital Signs Were Restored And Ecmo Was Placed For Treatment. In The Face Of An Unexpected Accident, In Addition To Causing Harm To The Patient'S Life, It Will Also Catch The Family Off Guard. This Case Is A Single-Parent Family With An Only Child. Family Functions And Work Are Almost At A Breakdown. During The Nursing Process, It Was Established That The Case Had Gas Exchange Disorders, Potentially Dangerous Infections, And Nutritional Needs. For Deficient Health Problems, Under The Treatment Of Extracorporeal Membrane Oxygenator, Interventional Nutrition Therapy Was Provided Within 48 Hours, Intestinal And Intravenous Nutritional Support Were Provided, And Nutritional Formula Support Such As Protein And Glutamine Were Provided To Improve Gas Exchange Disorders And Successfully Escape. Respirator, And Use Combined Care Measures To Control The Occurrence Of Infection, Maintain The Stability Of The Patient'S Vital Signs, Reduce Their Anxiety And Worry During The Treatment Process, Discuss With The Care Team To Provide Appropriate Needs, And Help The Patient Adapt To This Situation With A Positive Attitude Trauma.

#### Materials / Methods

This Article Is A Case Report',We Collect Data Through Written Conversations, Physical Communication, Observation, Physical Assessment, And Record Review To Assess The Patient'S Physiology, Self-Concept, Role Function, And Interdependence.

#### Findings / Results

Using The Nursing Process , We Collect Data Through Observation, Interviews, And Physical Assessments To Establish That The Patient Has Health Problems Such As Gas Exchange Disorders, Potentially Dangerous Infections, And Insufficient Nutritional Needs Under The Treatment Of Extracorporeal Membrane Oxygenator, To Maintain The Stability Of Vital Signs, Intervene In Nutritional Therapy Within 48 Hours, Provide Enteral And Intravenous Nutritional Support, Provide Nutritional Formula Support Such As Protein And Glutamine, Improve Gas Exchange Disorders, Successfully Wean Off The Respirator, And Use Combined Nursing Measures To Control The Occurrence Of Infection.

#### Discussion / Conclusion

This Article Describes The Nursing Experience Of Using An Extracorporeal Membrane Oxygenator To Treat A 24-Year-Old Patient Who Was Injured In A Car Accident And Suffered Shock And Acute Respiratory Distress Syndrome. Through Cross-Team And Nursing Care, The Patient Has Gradually Been Able To Adjust To His Own Problems, Successfully Adapted In All Aspects Of Physiological Function, Self-Concept, Role Function And Interdependence, And Has The Courage To Accept The Consequences Of Accidents. Transform And Face The New Life In The Future. We Hope That Sharing This Nursing Experience Can Provide Medical Staff With A Reference For Caring For Such Patients And Be Helpful.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-47

### PRE-OPERATIVE MALNUTRITION RISK AND THE NUTRITION GAP AMONG SURGICAL PATIENTS IN PUBLIC HOSPITALS

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#### Introduction

Pre-Operative Malnutrition Is Globally Recognized, But Local Screening And Intervention For Elective Surgical Patients Remain Inadequate. This Study Aims To Identify Risk Factors Associated With Malnutrition Risk And Assess The Nutrition Therapy Gap Among Elective Surgical Patients In Public Hospitals.

#### Materials / Methods

A Clinical Audit Was Conducted Among 120 Elective Surgical Patients From Two Hospitals (Hospital Sultan Idris Shah And Hospital Sultan Abdul Aziz Shah) Between October 2021 And March 2022. Adult Patient Who Was Admitted And Underwent Elective Surgical Procedures Were Included In This Study. Data For Risk Factors Included Socio-Demographic Status, Medical History, Anthropometric Measurements, Biochemical Data, Dietary Information. Meanwhile, Nutrition Gap Was Identified Through Data From Dietitian Referrals And Nutrition Support Provision. Malnutrition Risk Was Assessed Using Perioperative Nutrition Screening (Pons). Chi-Square And Multiple Logistic Regression Were Used For Risk Factors Association Analysis And Results For The Nutrition Therapy Gap Were Presented Descriptively.

#### Findings / Results

Among 120 Patients, About 35% Of Patients Were Elderly, 73% Were Female And 63% Were Malay. 14% Of The Patients Were Diagnosed With Colon And Breast Cancers. Univariable Analysis Showed A Significant Association Between Pre-Operative Albumin With Malnutrition Risk ( $P < 0.001$ ) But Did Not Demonstrate Significant Predictor In The Multivariable Model. There Was A Significant Association Between Ethnicity With Malnutrition Risk ( $P = 0.013$ ) Which Remain As A Significant Predictor In Multivariable Model (OR: 0.265, 95% CI: 0.076-0.922,  $P = 0.037$ ). This Indicated That Patient From Non-Malay Group Had Significantly Lower Risk Of Malnutrition Compared To Malay Patient. Before Surgery, 24% Of The Patients Were At Risk Of Malnutrition. However, Only 14% Were Referred To A Dietitian Pre-Operatively, Which Increased To 24% Post-Surgery. Despite 90% Of Patients Receiving Oral Nutrition Supplements Perioperatively, A Significant Gap In Early Nutritional Intervention Was Evident.

#### Discussion / Conclusion

Early Pre-Operative Nutrition Screening And Intensive Nutrition Therapy Are Crucial To Reduce Post-Operative Complications In Surgical Patients. This Study Highlights The Significant Association Between Ethnicity And Malnutrition Risk, Revealing A Critical Gap In The Referral To Dietitians Pre-Operatively. Future Research Should Focus On Understanding The Underlying Causes Of These Disparities To Develop More Effective Nutrition Interventions.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-48

### LESSON LEARNT ON THE ROLE OF PERIOPERATIVE NUTRITION PATHWAY, COMBINATION OF NUTRITIONAL SUPPORT AND IMMUNO-NUTRIENTS INITIATION IN ONCOLOGICAL SURGERY PATIENT: A CASE STUDY

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#### Introduction

Perioperative Nutrition Pathway Shows Potential Benefits In Targeting Safe And Feasible Caloric Need For Surgical Patients And Ensure Effective Nutritional Support Therapy Until Discharge. Combination Of Nutritional Support With Administration Of Specific Formula Enriched With Immuno-Nutrients Is Recommended For Malnourished Patients Undergoing Oncological Surgery.

#### Materials / Methods

Case Description: Client Ar, 73-Years Old Malay Man Was Hospitalized Due To Locally Advanced Endoscopically Obstructed Transverse Colon Tumor. He Was Planned For Right Hemicolectomy And Referred To Dietitian For Pre-Operative Nutrition Optimization. Nutrition Risk Screening (Nrs-2002) Revealed That The Patient Was At Severe Nutrition Risk. The Patient'S Weight Was 60.2Kg And Bmi 24.4Kg/M2 With A Significant Weight Loss Of 6.8Kg (10%) Within One Month. He Was Presented With Bilateral Pedal Edema With Low Albumin (19G/L) And High C-Reactive Protein Level (45Mg/L). He Also Had Reduced Food Intake For One Month With The Intake Of 12.7Kcal/Kg/Day And 0.33G/Kg/Day Of Protein. He Was Moderately Malnourished According To Global Leadership Initiative In Malnutrition (Glim) Assessment. Nutrition Diagnosis: Inadequate Protein Energy Intake Related To Physiological Causes As Evidenced By Minimal Oral Intake.

#### Findings / Results

Energy And Protein Prescribed Were 30Kcal/Kg/Day And 1.2G/Kg/Day, Respectively. Surgery Was Delayed More Than 14 Days For Nutrition Bulk Up. Combination Nutrition Therapy Involved Diabetic, Low Residue Diet And Initiation Of Special Formula Enriched With Immuno-Nutrients And Protein Modular Pre-Operatively. Cyclic Supplemental Parenteral Nutrition Was Initiated In View Of Minimal Solid Foods Intake But Good Compliance Towards Oral Nutrition Supplement (Ons) Prescribed. Energy And Protein Intake Were Maintained At 24-30Kcal/Kg/Day And 1.2-1.5G/Kg/Day, Respectively. Weight Was Maintained, Resolved Edema And Improved Albumin Level Before Surgery. Open Right Hemicolectomy With Ileostomy Was Done And Started Early Oral Feeding; Within 24-Hours Post-Surgery. He Was Discharged At Post-Operative Day 8 With The Continuation Of Ons At Home And Education For Stoma Diet Management.

#### Discussion / Conclusion

Perioperative Nutrition Pathway Has A Pivotal Role In Identifying Patient With Severe Nutritional Risk And Providing Appropriate Nutrition Management Before And After Surgery. Early Administration And Combination Of Nutrition Support Therapy Improves Patient'S Nutritional Status Before Surgery. Emerging Role Of Immuno-Nutrients Gives A Promising Outcome For Malnourished Oncological Surgery Patients, Either Before Or After Surgery.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-50

### CASE REPORT OF GLUCOSE-GALACTOSE MALABSORPTION IN A NEONATE: DIAGNOSIS, MANAGEMENT, AND NUTRITIONAL CHALLENGES

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#### Introduction

Glucose-Galactose Malabsorption Is A Rare Genetic Disorder Inherited As An Autosomal Recessive Disorder. In This Disorder, Glucose And Galactose Cannot Be Absorbed In The Gut, Due To Sglt1 Transporter Defect. This Leads To Chronic Watery Diarrhea In Neonates And May Be Fatal Unless Early Diagnosis Is Made. Since This Is A Rare Condition, It Can Be Easily Missed By Medical Teams.

#### Materials / Methods

Case Was Reported From Our Ward At Lady Ridgeway Hospital. Management Done After Referring Multiple Case Serious And Records Published Online Materials.

#### Findings / Results

A 4-Month-Old Boy Second Born To Non-Consanguineous Parents With A Healthy Sibling Presented With A History Of Chronic Watery Stools Since Two Weeks Of Age. He Was Born By Normal Vaginal Delivery At Term With An Uneventful Perinatal Period. His Birth Weight Was 2.096 Kg. He Was Exclusively Breastfed And Had Notable Growth Faltering.

On Examination (Figure 1), His Weight Was 3.1 Kg (<-3 Sd), Occipito-Frontal Circumference Was 37 Cm (<-3 Sd), And He Had Some Dehydration. He Had Marked Abdominal Distension. Profuse Watery Stools Were Noted. Stool Reducing Substances Were Highly Positive. Ultrasound Of The Abdomen Revealed Nephrocalcinosis. Arterial Blood Gas Showed High Anion Gap Acidosis. Urinary Ketone Bodies Were Positive. Blood Sugar Level Was 77 G/Dl. The Child Was Started On Complementary Feeding With Avocado. On The Following Day, He Started To Produce Formed Stools. Oral Glucose Tolerance Test Was Performed As A Crude Test To Confirm Simple Sugar Malabsorption. Post-Prandial (Glucose Feed) Capillary Blood Sugar Was 85 Mg/Dl. The Child Was Started On Supplementation With Galactomin 19, A Fructose-Based Formula. The Baby Gained Weight Appropriately On This Diet, And It Was Planned To Gradually Introduce Starchy Vegetables Later.

#### Discussion / Conclusion

Age Appropriate Complementary Feeding Was Started And Osmotic Diarrhea Has Subsided. Low Carbohydrate Food, Avocado (Glucose Content Is 0.44% In Wet Weight) Was Given Resulting In Formed Stools. Fish, Coconut Milk, Pumpkin, Carrots, Banana (Gros Michel Banana/Cavendish Were Subsequently Added. Child Responded To The Diet Until He Developed Ketosis Again. Intravenous Glucose Would Be A Choice To Prevent Ketosis. Due Practice Differences, Oral Feeding Was Continued Until Fructose-Based Formula Is Available. Due To The Cost Of This Formula, The Child Was Given To Cover 40% Of The Total Energy Needed.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-51

### EPIDEMIOLOGICAL PROFILE ON CASES REFERRED TO NUTRITION SUPPORT TEAM IN HOSPITAL TUANKU JA'AFAR SEREMBAN

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#### Introduction

Nutritional Support Team (Nst) In Hospital Tuanku Ja'afar Seremban (Htjs), Malaysia Was Established In 2023, Composed Of A Multidisciplinary Team: Surgeons, Pharmacist, Dietician, Physiotherapist And Nurses. This Study Aimed To Investigate The Current Status Of Nutrition-Support Therapies By The Nst In Htjs And To Provide Evidence-Based Data To Improve The Regulation Of Nutrition-Support Therapies In The Hospital.

#### Materials / Methods

This Is A Descriptive Study Of One Year Retrospective Data Collection From 1St June 2023 Till 31St May 2024, In Regards To The Cases Referred To The Nst Htjs. Data Related To Demographic Information And Nutrition Related Variables, Including Age, Gender, Race, Type Of Intestinal Failure, Indication For Referral, Percentage Of Weight Loss, Body Mass Index (Bmi), Subjective Global Assessment (Sga), Risk Of Refeeding, Serum Albumin Level And Types Of Nutrition Delivery, Were Collected.

#### Findings / Results

121 Patients Were Referred With A Mean Age Of 53.7 Years Old, Predominantly Malay Race (53.3%) And Female Gender (51%). Most Patients Have Type 2 Intestinal Failure (33%), And Initiation Of Parenteral Nutrition (58%) Was The Most Common Reason For Indication For Referral To Nst. Before Commencement Of Nutritional Support, A Mean Of 28% Weight Loss From Past Weight Was Observed. Most Of The Nutritional Support Delivered Was Mixed Parenteral And Enteral Delivery (71%) During The First Initiation Of The Nutrition Care Plan.

#### Discussion / Conclusion

The Introduction Of Nst In Htjs Has Opened The Paradigm Of A More Dynamic Management In Patients With Nutritional Issues, Beginning With A Pool Of Data Collected From The Referral. More Comprehensive Studies On The Outcome Of Nst Intervention From Data Available Could Be Proposed In The Future.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-53

### UTILIZING ALBUMEN LEVELS AND NUTRITIONAL ASSESSMENT IN EVALUATION OF MALNUTRITION IN MAINTAINANCE HEMODIALYSIS PATIENTS

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#### Introduction

Chronic Kidney Disease Patients Receiving Maintenance Hemodialysis (Mhd) Are At Risk Of Malnutrition. This Fact Has Been Elaborated In Several Studies Conducted Globally (1). Multiple Causes Are Attributed To Low Albumin Levels (<3.4G/L)In Mhd Patients. Protein-Calorie Malnutrition Decreases Albumin Synthesis. Both Malnutrition And Inflammation Suppress Albumin Synthesis (2) Resulting In Malnutrition.

Our Study Aim To Investigate Association Of Validated Two Nutritional Assessment Namely Subjective Global Assessment (Sga) And Malnutrition Inflammatory Score (Mis) Along With Biochemical Parameter Serum Albumin In Patients Undergoing Mhd.

Objectives:

To Compare 2 Nutritional Assessment Tools – Sga And Mis In Mhd Patients.

To Study Correlation Of Sga And Mis With Serum Albumin In Mhd Patients.

#### Materials / Methods

Nutritional Assessment Using Sga And Serum Albumin Is Routinely Done By Clinical Dietitian On Monthly Basis In Dialysis Unit Of A Multispecialty Hospital, In Navi Mumbai, India. In This Study Mis Score Was Studied As A New Parameter Along With Sga And Serum Albumen Which Are Routinely Done. Random Sampling Technique Was Adopted, 99 Patients Were Studied For Their Serum Albumen, And Sga & Mis Score .Statistical Analysis Was Done Using Mean With Standard Deviation, Frequency With Percentages And Spearman'S Correlation Coefficient (Spearman Rho) For The Study Variables.

#### Findings / Results

Baseline Information Related To Age, Weight, Bmi And Nutritional Assessment Was Done And Reported As Mean Age, Weight, Bmi , Sga And Mis.Mean Weight Of Patients Was 67 Kg± 11.6, With Bmi Of 26±3.7. Sga Was 17±1.5 And Mis Score Was 12.1±2.5.Both Sga And Mis Indicated That Patients Were Moderately Malnourished. Scores .45.5% Patients Had Serum Albumen Lower Than Normal I.E. Below 3.4G /L.Sga Which Was Significantly Positively Correlated With Mis (Spearman Rho = 0.350, P<0.001). Mis Was Negatively Correlated With Serum Albumin (Spearman Rho = -0.652, P<0.001). No Significant Correlation Of Sga And Serum Albumin Was Found (Spearman Rho = -0.021, P=0.834).

#### Discussion / Conclusion

Though Nutritional Assessment Sga Is Routinely Done In Our Hospital, This Study Demonstrates Mis Can Have Better Correlation In Denoting Malnutrition Along With Serum Albumen As Compared To Sga( As Sga Does Not Considers Serum Albumen ) . Periodic Evaluation, Intervention And Monitoring Can Support In Treatment Of Malnutrition In Maintenance Hemodialysis Patients.

(1)Pham Thi Lan, Anh Md, Phda; Truong Thanh, An Bsca; Luong Ngoc, Quynh Bsca; Pham Nhat, Tuan Mpha; Doan Duy, Tan Md, Msca,\* . Prevalence And Factors Associated With Malnutrition Among Hemodialysis Patients In A Single Hemodialysis Center In Vietnam: A Cross-Sectional Study. *Medicine* 103(14):P E37679, April 05, 2024

(2)Alves, F.C., Sun, J., Qureshi, A.R., Dai, L., Snaedal, S., Barany, P., Heimbürger, O., Lindholm, B. And Stenvinkel, P., 2018. The Higher Mortality Associated With Low Serum Albumin Is Dependent On Systemic Inflammation In End-Stage Kidney Disease. *Plos One*, 13(1), P.E0190410.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-54

### POSSIBLE SARCOPENIA AND ITS ASSOCIATION WITH HOSPITAL-ASSOCIATED DYSPHAGIA AND DECLINE IN PHYSICAL FUNCTION: FINDINGS FROM A HEART FAILURE PATIENTS PROSPECTIVE COHORT STUDY

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#### Introduction

There Is Limited Evidence Regarding The Association Of Sarcopenia With Dysphagia And Physical Function In Patients With Heart Failure. This Study Examined The Association Between Possible Sarcopenia And Both Swallowing And Physical Function In Individuals With Acute Heart Failure (Ahf).

#### Materials / Methods

This Prospective Cohort Study Included Hospitalized Patients With Ahf. Possible Sarcopenia Was Assessed On Admission Using Calf Circumference And Grip Strength According To The Diagnostic Criteria Of The Asia Working Group For Sarcopenia Diagnostic Criteria. The Primary Outcome Was Dysphagia At Discharge Using The Food Intake Level Scale (Fils), And The Secondary Outcome Was Physical Function At Discharge Using The Barthel Index (Bi). Multiple Regression Analysis And Logistic Regression, Adjusted For Potential Confounders, Were Used To Examine The Association Between Possible Sarcopenia At Admission And Fils And Bi At Discharge.

#### Findings / Results

A Total Of 320 Patients (Mean Age 81.5 Years; 170 Women) Were Included In The Analysis; 199 (59.4%) Were Diagnosed With Possible Sarcopenia. Multivariate Analysis Showed That Possible Sarcopenia At Admission Was Significantly Associated With Fils At Discharge ( $B = -0.1204$ ;  $P = 0.039$ ). Possible Sarcopenia At Admission Was Not Significantly Associated With Bi At Discharge ( $OR = 2.066$ ; 95%  $CI, 0.910-4.692$ ,  $P = 0.083$ ).

#### Discussion / Conclusion

Possible Sarcopenia Was Associated With Decline In Swallowing Function During Hospitalization In Patients With Ahf. These Findings Highlight The Need For Early Detection And Treatment Of Possible Sarcopenia In This Setting.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-57

### UNIFIED APPROACH AND INTERDISCIPLINARY TEAM SUCCESS AT MANDALAR HOSPITAL: COLLABORATIVE NUTRITION THERAPY IN A COMPLEX CASE

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#### Introduction

Interdisciplinary Approaches In Medical Nutrition Therapy Are Crucial For Managing Complex Malnutrition. A Comprehensive Nutrition Plan Requires A Team Of Dietitians, Physicians, Surgeons, Gastroenterologists, Intensivists, Psychiatrists, Nurses, Pharmacists, And Other Healthcare Professionals. This Case Study Highlights The Team'S Roles And Outcomes Following Espen Guidelines.

#### Materials / Methods

A 92-Year-Old Male With Type 2 Diabetes, Hyperosmolar Hyperglycemic State, Sepsis, Acute Kidney Injury, Ischemic Stroke, Atrial Fibrillation, And Copd Had Swallowing Difficulty. Referred To Dietitians, He Had Been On Nasogastric Tube Feeding Since September 2023. He Was Unconscious And Unstable, With Low Albumin (3.1G/Dl), High Blood Glucose (443 Mg/Dl), High Serum Sodium (160 Mmol/L), And High Osmolarity (418Mosm).

#### Findings / Results

During The First Hospitalization, Patient'S Caloric, Protein, And Fluid Needs Were Met Using Blenderized Diet And Diabetic-Specific Oral Nutrition Supplements (Ons), Following Clinical Guidelines. Requirements Were 1467-1716 Kcal, 47G Protein/Day Initially, Then 90G Protein/Day, And 2100 MI Fluid/Day Enteraly. Despite Medication Adjustments And Monitoring, Swallowing Did Not Improve, Necessitating Home Enteral Nutrition Therapy (Hen) With 1980 Kcal, 93 G Protein, And 2000MI Fluid Daily. A Peg Tube Was Inserted But Complications Led To Mixed Parenteral And Enteral Feeding. Diarrhea Required A Switch To Lactose Free And Low-Fiber Ons. By July 2024, He Was Readmitted For Tracheostomy Tube Blockage, Continuing Peg Tube Feeding.

#### Discussion / Conclusion

The Nutrition Therapy Team Developed A Personalized Care Plan Involving Dietary Modification And Ons. In Myanmar, Interdisciplinary Collaboration In Hospital Settings Is Uncommon, But This Case Highlights Its Critical Role, Benefits, And Challenges. To Optimize Patient Outcomes In Complex Nutritional Cases, Future Practices Should Emphasize A Well-Implemented Interdisciplinary Approach. Following Unified Nutrition Support, Patient'S Condition Improved With Gcs Of 15/15 And Normalized Blood Sugar, Electrolyte And Osmolarity Levels. Despite Meeting Espen Guidelines, Patient'S Muac And Cc Reduced By 2 Cm And 3 Cm, Respectively, Though Serum Albumin Increased To 3.2 G/Dl With No Vitamin Deficiencies Or Bed Sores. Limitations Included Lack Of Resources Like Weighing Machines For Bedridden Patients And Shortage Of Ons. Awareness And Knowledge Sharing Among Healthcare Professionals About Unified Nutrition Support Approaches Are Crucial. Future Research Should Collect Data From Similar Cases To Enhance Understanding Of Individualized Dietary Modifications In Complex Cases.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-58

### NUTRITION OUTLOOK IN A SURGICAL DEPARTMENT IN A DISTRICT HOSPITAL: A CROSS-SECTIONAL COHORT

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#### Introduction

Since The Inception Of Global Surgery Initiatives Nationwide In Year 2023, There Has Been An Increase Of Complex Surgical Procedures Performed In District Hospitals. A Significant Issue Is Malnutrition Has Not Been Adequately Addressed. To Rectify This, We Established An Ongoing Database Within The Nutrition Therapy Team (NTT) To Collect Nutrition Risk Screening 2002 (Nrs) Scores For All Patients Admitted To Surgical Wards. Objective Of This Study Is To Determine The Incidence Of Nutrition-At-Risk Patients In The Surgical Department Of Hospital Enche' Besar Hajjah Khalsom, Kluang (Hebhk).

#### Materials / Methods

A Cross-Sectional Study Was Conducted From October 2023 To May 2024. All Surgical Patients Admitted During This Period Were Screened Using The Nrs-2002 Form. Data On Demographics, Body Mass Index (Bmi), Diagnosis, And Total Nrs Score Were Collected And Analyzed Using Spss Version 29.0.

#### Findings / Results

The Response Rate For Nrs Scoring Was 89.5%. A Total Of 669 Surgical Patients Were Included With 56.4% Being Male Sex. The Mean Bmi Was 26.6 Kg/M2. We Identified 19% (N=127) Of Patients As Being Nutrition-At-Risk, With A Slight Male Predominance (53.5%, N=68). The Primary Causes Were Malignancies (38.6%) And Benign Surgical Conditions (30.7%) (Chi-Square Test, P <.001).

#### Discussion / Conclusion

Malnutrition In Surgical Patients Can Lead To Poor Recovery And Complications. The Incidence Of Nutrition-At-Risk In This Study Aligns With Global Studies Reporting A 22% Malnutrition Rate In Hospitalized Patients. Identifying Nearly One-Fifth Of Patients As Nutrition-At-Risk Underscores The Need For Routine Nutritional Screening In Surgical Populations. The Highest Incidence Of Nutrition-At-Risk In Patients Are With Malignancies (35.0%, N = 49) Across All Other Categories. As A Conclusion, Patients With Malignant Conditions Face Nutritional Challenges Due To Inflammatory Responses And Reduced Intake Caused By Hypermetabolic State. Therefore, Early Identification And Intervention Are Crucial To Prevent Malnutrition.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-59

### EARLY ENTERAL NUTRITION IN NEURO ICU: IMPACT ON MORTALITY AND BARRIERS TO IMPLEMENTATION

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#### Introduction

Early Enteral Nutrition Is Widely Recognized For Its Advantages Over Parenteral Nutrition, Leading To Better Outcomes In Critically Ill Patients. However, Clinical Barriers Often Delay Its Initiation, Particularly In Neurocritical Patients. This Study Aims To Investigate The Status And Barriers Of Early Enteral Nutrition In The Neuro Icu.

#### Materials / Methods

This Is A Retrospective Study From Medical Record Review Of 1 University Hospital. We Analyzed The Implementation Status Of Early Enteral Nutrition In Patients With Neurologic Problems Admitted To The Neuro Icu From Mar. 2020 To Dec. 2022.

#### Findings / Results

A Total Of 251 Patients Were Enrolled In This Study. Among Them, 158 (63.0%) Were Male, With A Mean Age Of 67.8 Years (Range: 3–99, Iqr 49-82). Fifty-Seven Patients (22.7%) Were Admitted To The Surgical Department (Neurosurgery), While The Remaining 194 Patients (77.3%) Had Medical Problems (Neurology). Ninety-Seven Patients Presented With Severe Neurologic Deficits (Stuporous To Coma).

Sixty-Five Patients (25.9%) Did Not Start Early Enteral Nutrition. These Patients Had More Severe Initial Neurologic Deficits And Experienced A Worsening Of Their Condition After Admission. Among Them, 54 (83.1%) Expired, And Only 11 Survived At Discharge. In Contrast, The 186 Patients Who Began Early Enteral Nutrition Within 48 Hours Of Admission Or Surgery Had A Relatively Lower Mortality Rate At Discharge (23 Patients, 12.4%). Even Among Patients With Severe Neurologic Deficits, Those Who Started Early Enteral Nutrition Had A Significantly Lower Mortality Rate (43.8% Vs. 83.1%).

#### Discussion / Conclusion

Early Enteral Nutrition May Be Associated With A Lower Mortality Rate In Neuro Icu Patients. Despite The Presence Of Barriers, Timely Initiation Of Enteral Nutrition Appears To Improve Outcomes, Particularly In Patients With Severe Neurologic Deficits. Further Research Is Needed To Identify And Overcome These Barriers To Optimize Patient Care In The Neuro Icu.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-60

### NUTRITIONAL MANAGEMENT OF CHYLOTHORAX IN A PATIENT WITH ADVANCED MEDIASTINAL LYMPHOMA.

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#### Introduction

Chylothorax Involves The Accumulation Of Chyle In The Pleural Cavity. The Presence Of Chyle, A Lipid-Rich Lymphatic Fluid, In The Pleural Space Can Lead To Respiratory Distress, Malnutrition And Immune Dysfunction, All Of Which Can Further Increase The Morbidity And Mortality Of Patients With Underlying Malignancy.

#### Materials / Methods

N/A

#### Findings / Results

Case Description:

A 50-Year-Old Malay Lady Presented With Dyspnea And Unexplained Weight Loss And Diagnosed With Advanced Mediastinal Lymphoma With Bilateral Chylothorax. She Was Planned For Radiotherapy Followed By Chemotherapy Once The Chyle Leak Subsides. Initial Management Included Inserting A Chest Tube For Continuous Drainage Of The Pleural Effusion. She Was Referred To The Dietitian For The Nutritional Management Of A Chyle Leak And To Improve Her Nutritional Status Before Starting Radiotherapy.

The Patient'S Bmi (Body Mass Index) Was 19.9Kg/M2, She Had Lost 19% Of Her Body Weight In 3 Months And Was Only Consuming 45% Of Her Total Energy Requirement And 28% Of Her Protein Requirement. She Had Moderate Body Fat And Mild Muscle Mass Loss Thus Putting Her In The Category Of Moderate Malnutrition According To The And/Aspen Criteria. The Chest Tubes Drained A Total Of 1870 MI Of Fluid On Day 1 After Insertion While She Had Hyponatraemia (130Mmol/L) And Severe Hypertriglyceridaemia (26.46Mmol/L).

The Nutritional Intervention'S Goals Were To Decrease Chyle Fluid Production And Improve Her Nutritional Status To Prepare Her For Radiotherapy. The Patient Was Placed On A Very Low-Fat [ $<10\text{G}$  Of Lct (Long-Chain Triglycerides)/Day] And High Protein Diet (1.5G/ Kg Body Weight), Supplemented With Medium-Chain Triglycerides (Mcts) And Given Fat Free Oral Nutrition Supplements Fortified With Modular Protein To Boost Her Intake.

After 9 Days, Significant Improvements Were Observed: The Patient Gained 1.3 Kg, Her Oral Intake Improved To Meet 92% Of Energy And 95% Of Protein Needs, And Chyle Drainage Decreased Dramatically To 120 MI (93.5% Reduction). Dyspnea Symptoms Resolved, Allowing Her To Proceed With Radiotherapy.

#### Discussion / Conclusion

This Case Underscores The Critical Role Of Nutritional Management In Treating Chylothorax. A Low-Fat Diet Supplemented With Mcts Can Effectively Reduce Chyle Production. By Addressing Nutritional Issues, Patients Can Achieve Better Clinical Outcomes And Tolerate Necessary Medical Interventions More Effectively. In Conclusion, Integrating Nutritional Support As Part Of Chylothorax Management Is Essential, Especially In Patients With Cancer As It Supports Timely Initiation Of Therapeutic Interventions Like Radiotherapy, Ultimately Improving Patient Outcomes And Quality Of Life.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-61

### THE ACTUAL ACTIVITIES AND CHALLENGES OF NURSES IN NUTRITIONAL THERAPY IN JAPAN

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#### Introduction

Nurses Are Often Involved In Clinical Nutritional Therapy, But In Environments With Other Professions, They Tend To Depend On Other Professions. In Team Medical Care, It Is Important For Each Profession To Work Together To Perform At Their Best, And Nurses Are Also Required To Actively Participate In Nutritional Management. The Purpose Of This Study Is To Clarify The Actual Activities And Challenges Of Nurses In Nutritional Therapy Through A Literature Review In Japan.

#### Materials / Methods

Using The Online Version Of The Japanese Medical Journal, Original Articles From The Past 10 Years Were Searched For Using The Keywords "Nutritional Therapy Or Nutritional Management And Nurse" (June 2024). Of The 139 Articles Extracted, 100 Abstracts That Met The Purpose Of This Study Were Analyzed Using Text Mining Techniques.

#### Findings / Results

The Most Frequently Occurring Words Were "Nutrition", "Patient", "Nurse" And "Management". The Co-Occurrence Network Was Classified Into Seven Subgraphs: "Collaboration With Registered Dietitians In The Nutritional Management Of Patients", "Oral Care And Discharge Support For The Older Adults", "Dietary Advice And Fluid Therapy", "Visiting Nursing For Patients Receiving Home Care", "Intervention As A Multidisciplinary Approach By The Nutrition Support Team(Nst)", "Support For The Introduction And Initiation Of Enteral Nutrition" And "Shortage Of Professionals Specializing In Eating And Swallowing Disorders".

#### Discussion / Conclusion

This Research Results Showed That The Activities Of Nurses In Nutritional Therapy Are Diverse, Including Collaboration With Registered Dietitians And Nst, Oral Care For The Older Adults, Visiting Nursing For Patients Receiving Home Care, The Introduction Of Enteral Nutrition, And Dealing With Dysphagia. Challenges Include Strengthening Collaboration With Other Professions, Improving Support Systems For The Elderly, And The Need For Specialized Knowledge About Dysphagia. Active Participation Of Nurses In Nutritional Management And Collaboration Among Multiple Professions Contributes To Improving Patients' Nutritional Status And The Effectiveness Of Treatment. Going Forward, It Will Be Necessary To Improve Education And Training To Enhance The Expertise Of Nurses And To Strengthen Team Medical Care.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-62

### ASSOCIATION OF ENERGY AND PROTEIN DELIVERY IN CRITICALLY ILL PATIENTS WITH LOW MUSCULARITY ASSESSED BY COMPUTED TOMOGRAPHY: A RETROSPECTIVE STUDY

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#### Introduction

Suboptimal Muscle Composition (I.E. Low Skeletal Muscle Mass And/Or Quality, High Intermuscular Adiposity) Is Associated With Worse Clinical Outcomes In Critically Ill Patients. As Optimal Nutrition Delivery May Attenuate Muscle Loss, We Hypothesized That Higher Energy And/Or Protein Delivery During Critical Illness Is Associated With Lower 60-Day Mortality In Patients With Suboptimal Baseline Muscle Composition.

#### Materials / Methods

This Retrospective Study Included Ventilated Patients Who Had An Intensive Care Unit (Icu) Stay Of  $\geq 72$  Hours And A Computed Tomography (Ct) Scan Covering The L1 Or L3 Level Within 72 Hours Of Admission. Skeletal Muscle Area (Sma), Skeletal Muscle Density (Smd), And Intermuscular Adipose Tissue (Imat) Were Quantitatively Derived From Ct Images. Multivariable Logistic Regressions Were Used To Identify Ct-Derived Parameters That Independently Predict 60-Day Mortality, Adjusting For Baseline Variables Significantly Associated With 60-Day Mortality In Univariate Analysis. Low Muscularity Cutoffs For 60-Day Mortality Prediction Were Determined From Significant Ct-Derived Parameters (I.E. Sma And Smd) Using Receiver Operating Characteristics Curve Analysis. Multivariable Logistic Regressions Were Then Performed To Estimate The Associations Between Energy And Protein Delivery During Icu Stay (Maximum 14 Days) With 60-Day Mortality Among Those With Low Muscularity.

#### Findings / Results

We Included 199 Patients With Mean Age, Bmi And Apache Ii Score Of  $53.23 \pm 18.53$  Years,  $25.57 \pm 6.25$  Kg/M<sup>2</sup> And  $18.49 \pm 7.42$ . Non-Survivors Had Significantly Lower Sma ( $95.92 \pm 27.58$  Cm<sup>2</sup> Vs  $120.23 \pm 33.04$  Cm<sup>2</sup>) And Smd ( $29.25 \pm 11.69$  Hu Vs  $35.99 \pm 10.62$  Hu) Compared To Survivors, While Imat Was Similar Between Groups ( $13.22 \pm 14.17$  Cm<sup>2</sup> Vs  $10.15 \pm 6.78$  Cm<sup>2</sup>). Sma And Smd Were Associated With 60-Day Mortality Even After Controlling For Comorbidities, Apache Ii And Sofa (Sma: Adjusted Odds Ratio [Aor] 0.977, P<0.001; Smd: Aor 0.960, P=0.007). Low Muscularity Cut-Offs Were Sma  $119.14/80.80$  Cm<sup>2</sup> And Smd  $39.40/19.65$  Hu In Males/Females, Respectively. Energy And Protein Delivery (Mean  $14.96 \pm 6.85$  Kcal/Kg/Day And  $0.68 \pm 0.35$  G/Kg/Day, Respectively) Was Not Associated With Mortality Among Low Sma (Energy: Aor 0.989, P=0.775; Protein: Aor 0.635, P=0.518), Low Smd (Energy: Aor 0.981, P=0.642; Protein: Aor 0.621, P=0.523), Or Low Sma+Smd (Energy: Aor 0.963, P=0.486; Protein: Aor 0.373, P=0.294) Subgroups.

#### Discussion / Conclusion

In Critically Ill Patients, Lower Skeletal Muscle Mass And Quality Were Associated With Increased 60-Day Mortality, But Energy And Protein Delivery Up To 14 Days In The Icu Did Not Modify This Association.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-63

### ASSESSING PARENTERAL NUTRITION SERVICES AMONG PHARMACISTS IN MALAYSIAN HOSPITALS: A CROSS-SECTIONAL STUDY

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#### Introduction

Parenteral Nutrition (Pn) Services In Malaysia Are Comprehensive, With Pharmacists Playing Crucial Roles In Enhancing The Patient'S Quality Of Life. This Study Aims To Access The Pharmacists' Profiles, Current Practice Status, Knowledge, Practices, And Challenges, Contributing To The Body Of Knowledge And Enhancing The Quality Of Parenteral Nutrition Delivery In Patient Care.

#### Materials / Methods

The National Pharmacy Service Programme Served As The Sampling Frame For This Cross-Sectional Survey Conducted Among Registered Pharmacists In Malaysia Attached To Government Hospitals From Ministry Of Health And University Hospital Who Had At Least One Year Of Pn Service Delivery Experience. This Survey Was Conducted From March To May 2024. A Self-Developed, Validated, And Structured Online Questionnaire With Five Sections (Pharmacists' Profiles; Current Practice Status; Knowledge; Practices; And Challenges) Was Administered.

#### Findings / Results

A Total Of 86 Pharmacists From 46 Hospitals Nationwide Participated In This Study. Most Of The Pharmacists Were Engaged At Tertiary Hospitals (N=61,70.9%) Primarily Located In Central Peninsular Malaysia Region (N=30,35%), Aged 26-40 (N=83,96.5%), With 1-5 Years Of Experience (N=65,75.6%) And Delivering Both Clinical And Technical Compounding Roles (N=66,76.7%). Additionally, 67.4% (N=31 Hospitals) Have An Operational Clean Room And 34.8% (N=16 Hospitals) Provide Outsourcing Services To Other Hospitals. The Commercial 3-In-1 Standard Fish-Oil Lipid Emulsions Bags Are Preferred By Most Sites, With Peripheral Route Regimes (N=43 Hospitals, 93.4%) Prescribed Similar To Central Regime (N=43 Hospitals, 93.4%). Notably, More Than Half Of The Pharmacists Demonstrated Good Knowledge (N=53, 62%) And Practice (N=44, 51%) Regarding Parenteral Nutrition Delivery. Knowledge Significantly Predicted Practice ( $R^2 = 0.23$ ,  $F(1,84) = 24.43$ ;  $B = 0.475$ ,  $P < 0.001$ ). However, The Challenges Encountered By Pharmacists From Acquiring Knowledge And Effectively Delivering Parenteral Nutrition Practices Stem From A Lack Of Professional Development Programs And Insufficient Involvement Of Pharmacists In Patient Nutrition Care Plans ( $P < 0.05$ ).

#### Discussion / Conclusion

Pharmacists Landscape For Pn Delivery In Malaysia Indicate Active Participation At Government Hospitals Engaging Both Clinical And Supply Roles. However, There Is A Need For Further Improvement In Knowledge And Practice To Enhance Professional Development And Adopt A Patient-Centered Approach.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-64

### MAPPING THE LANDSCAPE: A SCOPING REVIEW ON ENHANCED RECOVERY AFTER SURGERY (ERAS) PROTOCOL IN UPPER GASTROINTESTINAL SURGERY.

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#### Introduction

The Enhanced Recovery After Surgery (Eras) Protocol Has Been Widely Adopted In Various Healthcare Systems To Improve Surgical Outcomes And Expedite Patient Recovery. However, The Implementation And Adaptation Of Eras Practices Can Vary Significantly Across Different Regions. In Malaysia, The Standardisation Of Eras Protocol In Upper Gastrointestinal (Ugi) Surgery Is Lacking. This Scoping Review Protocol Aims To Explore And Map The Current Practices, Challenges, Facilitators And Outcomes Associated With Eras Protocols In Ugi Subspecialty. By Systematically Identifying And Analysing Relevant Studies, We Seek To Understand The Extent Of Eras Implementation, Variations In Protocols, And Their Impact On Patient Recovery And Healthcare Systems In Diverse Contexts.

#### Materials / Methods

This Scoping Review Followed The Methodological Framework By Arksey And O'Malley (2005), Incorporating Updated Guidelines From Joanna Briggs Institute (Jbi) And The Preferred Reporting Items For Systemic Reviews And Meta-Analysis Extension For Scoping Review (Prisma-Scr). A Comprehensive Search Is Conducted Across Four Databases (Pubmed, Scopus, Ovid And Ebscohost) Of Articles Published In English From 1990 To 2023. Eligible Literature Includes Primary Research Studies Encompassing Various Study Designs And Healthcare Settings, Involving Adult Patients Who Underwent Ugi Surgery. Grey Literature, Unpublished Studies Are Not Considered. Two Independent Reviewers Handled The Study Selection, Data Extraction, And Data Charting, With Any Disagreements Resolved By Consensus With A Third Reviewer.

#### Findings / Results

Out Of The 2,158 Results Identified In The Initial Search, Preliminary Findings From 24 Selected Studies Revealed Recurring Themes As Barriers To Eras Protocol Implementation: Resource Shortages, Insufficient Clear Guidance For Eras In Local Contexts, And Lack Of Support And Collaboration Across And Within Disciplines. Key Facilitators Identified Were: Adapting Guidance To Local Contexts, Active Engagement Of Multidisciplinary Teams, And Regular Educational Meetings, Training, And Updates. Initial Screening Of Outcomes Associated With Eras Indicated Reductions In Postoperative Length Of Stay, Postoperative Complications, Time To First Postoperative Flatus, And Time To First Postoperative Defecation. However, Eras Compliance Rates Remain Low And Appear To Vary Depending On The Type Of Ugi Surgery.

#### Discussion / Conclusion

The Findings Of This Review Provides Comprehensive Insights Into The Regional Adaptations Of Eras Protocols In Ugi Surgery, Highlight Gaps In Current Knowledge, And Suggest Directions For Future Development Of Training Framework, Research And Practice Improvements.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-66

### RATE BASED VS VOLUME BASED FEEDING FOR CRITICALLY ILL PATIENTS IN ICU.

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#### Introduction

Initial Observation Showed Inadequacy Of Nutrition Delivery Through Tube Feeding In Our Icu Setup Due To Interruptions Of Feeds Which Can Be Channelized By Volume Based Feeds (Vbf).

#### Materials / Methods

This Was A Single-Centre Cohort Study Where T-Test Was Adopted For The Comparison Of Rate Based Feeding (Rbf) Vs Volume Based Feeding (Vbf) In Critically Ill Patients Who Were On Tube Feeding. The Primary Outcome Of The Study Is To Optimize Nutrition Delivery Whereas The Secondary Outcome Is To Compare Its Effect On Average Length Of Stay (Alos) In Hospital, Gastro-Intestinal Disturbances And Number Of Mechanical Ventilation Days.

#### Findings / Results

In Totality, 100 Patients Were Enrolled In The Study With A Mean Age Of 65.9 Years (74% Male And 26% Female). Volume Based Feeds (Vbf) Group (N=50) Received 86% Of Goal Calorie Requirement With Mean Deficit Of 14% Compared To The Rate Based Feeding (Rbf) Group (N=50) Which Received Only 52 % Of Goal Calorie Requirement. Similarly Around 89% Of Protein Requirement Was Met By Vbf Group With Deficit Of 11% Whereas Only 52.04% Of Protein Was Met By Rbf. Although There Was An Improvement In Delivery Of Calories And Protein, There Was No Much Difference Seen In Average Length Of Stay (Alos) In Hospital, Gastro Intestinal Disturbances And Mechanical Ventilation Days.

#### Discussion / Conclusion

Volume Based Feeding Showed A Significant Increase In The Delivery Of Energy And Protein Without Any Gastrointestinal Symptoms, Regurgitation, Or Feeding Intolerance And Can Be Safely Administered In Critically Ill Population.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-67

### TO EVALUATE THE IMPACT OF DIABETES SPECIFIC HIGH PROTEIN HIGH FIBER (DSHPHF) FORMULA WITH MODIFIED CARBOHYDRATE BLEND ON POST PRANDIAL SUGAR LEVELS IN CRITICALLY ILL PATIENTS

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#### Introduction

Comprehensive Glycemic Management In Diabetes Involves Modification Of Diet And Lifestyle Patterns In Addition To Use Of Antidiabetic Pharmacotherapy. Dietary Alterations That Limit Hyperglycemia Are Particularly Important In Enabling Patients To Attain Glycemic Goals And Prevent Complications. The Objective Of The Study Is To Evaluate The Impact Of Diabetes Specific High Protein, High Fiber On Post Prandial Sugar Levels With Type 2 Diabetes In Critically Ill Patients And Helps To Achieve The Nutrition Goals Of The Patients. To Study The Impact Of Diabetes Specific High Protein (Dshp) Formula Supplementation On Primary Outcome (Postprandial Sugars) At Different Mealtimes Viz., Breakfast, Lunch, Evening Snack, And Dinner As Enteral Nutritional Support Therapy, Secondary Outcomes Such As Fbs, Ppbs (Before And After Admission), Clinical Outcomes (Response To Medical Treatment), Anthropometric Parameters Like Weight, Waist Circumference, Body Composition (Visceral Fat, Total Fat And Skeletal Muscle Mass), Neck Circumference, Biochemical Parameters Like Albumin Level, Creatinine, Mean Creatinine And Mean Bun.

#### Materials / Methods

It,S A Single Centric Feeding Trial Done On Patients Having T2Dm And On Insulin Therapy At Medical Icu Of Apollo Hospitals Bhubaneswar. All Patients Age, Sex, Bmi, Mode Of Feed, Nutrition Intake, Calorie Protein Recommended Vs Received, Days Of Icu Stay, Total Los, Fbs And Ppbs At The Time Of Admission Vs At The Time Of Discharge, All Bio Chemical Parameters, Days Of Insulin Therapy, Blood Sugar Level At Different Meal Times Of A Day Were Captured And Data Was Analyzed Using Spss Version 21 Average Duration Of Insulin Therapy Was 13.4± 7.7 Days.

#### Findings / Results

Out Of 30 Samples Major Contributors Were Male (90%), Compared To The Female Participants (10%). The Median Age Was 61.10 ± 17.41. The Median Los At Hospital Was 13.43 ± 7.6 Days While The Icu Stay Was 6.43 ± 6.46 Days. Regarding Their Anthropometrical Details, The Mean Height Was 157.43 ± 7.43 Cm While 66.43 ± 13.2 Kg. Mean Bmi Was Found To Be 26.9 ± 5.5 And 46.7 % Belonged To The Normal Bmi Category While There Was An Equal Proportion Of Overweight And Obese Categories (26.7%). The Mean Sga Score For The Participants Indicated That 33.3% Were Well Nourished, 40% Belonged To The Moderately Nourished Category Whereas 26.7% Belonged To The Severely Malnourished Category. The Mean Scoops (Supplement) Given Was 21± 3 Per Day For A Duration Of 10±9 Days, Through Intermittent And Continuous Feeding. The Mean Difference Between Initial And Final Level Of Hemoglobin Was Negative 1.1 ± 2 Gm/Dl, Mean Albumin Level Before And After The Supplement Phase Is 0.2 ± 0.8 G/Dl. The Mean Creatinine Was Found To Be Negative -0.3 ± 0.8 G/Dl. While Mean Bun Was 17.2 ± 8.6 G/Dl . The High Fiber Content Of The Supplement Fulfills The Dietary Requirement Of The Patient As Per The Recommended Doses Of Ada. Due To The High Calorific Value Of The Supplement The Daily Dietary Requirement Of The Patient Was Sufficiently Covered After Two Weeks Of The Supplement Intake. After Supplementation Mean Hba1C % Was 7.2 ± 2.6. While Fbs Was 182.7±59.6 Mg/Dl & Ppbs Was 148.4±43.6 Mg/Dl On The Second Meal Effect On The 8Th Day Indicating That The Supplement Has A Reduced Effect On The Blood Glucose Levels.

#### Discussion / Conclusion

The Scientifically Designed Diabetes Specific Nutritional Supplement, Protein Blend, Zero Fructose, Zero Maltodextrin, High Fiber, (Dshphf), Low Gi Formula, Which Helps Control Spikes In Blood Sugar Levels Which Is Reflected In The Study Findings.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-68

### PREVALENCE OF DIABETES, CARDIOVASCULAR DISEASES & OBESITY IN EMPLOYEES WORKING IN A MULTINATIONAL COMPANY DUE TO FAULTY EATING HABITS

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#### Introduction

This Study Aimed To Assess Increasing Rates Of Diabetes, Cardiovascular Diseases (Cvd) Along With Obesity In Employees Of A Multinational Company Due To Faulty Eating Habits.

#### Materials / Methods

An Observational Study Was Conducted Using A Sample Size Of (58) Male Employees Working In A Multinational Company, Aged Between 25-58 Years Who Were Having Faulty Eating Habits. Data Were Collected Via Google Questionnaire (Forms) Designed To Capture The Effects Of Eating Habit On Health Status, Specifically Focusing On Blood Glucose Levels, Total Cholesterol Levels And Body Mass Index (Bmi) Of The Workers, Which Was Measured By Recent Health Checkup Reports.

#### Findings / Results

The Study Found That 39.7% Of The Participants Had Normal Glucose Levels, 25.9 Were Classified As Prediabetic And 13.8% Were Diagnosed With Type 2 (T2 Dm) Diabetes. Also, This Study Found Out That 5.2 % Employees Were Having Optimum Total Cholesterol Levels With Range Of Less Than 100 Mg/Dl, 13.8% Of Them Having 100-150 Mg/Dl Cholesterol Levels Which Was Fairly Good And 46.6% Having Borderline High Cholesterol (Total) Level With Range Of 150-200Mg/Dl, 34.5% Of Them Were Having Very High Levels Of Cholesterol With Range Of Above 239Mg/Dl. As Per Asia-Pacific Bmi Classification, 10.3% Of Employees Were Normal As Their Bmi Were Between 18.5-22.9 Kg/M2, 17.2% Of Employees Were Overweight As Their Bmi Was Between 23-24.9 Kg/M2, And Rest Of The Employees With 44.8% Were Belonging To Obesity Class 1 With Bmi Between 25-29.9 Kg/M2 And 27.6% Were Belonging To Obesity Class 2 With Bmi More Than 30 Kg/M2 .Whereas, No Participants Were Found Underweight

#### Discussion / Conclusion

Conclusion:

The Higher Prevalence Of Pre-Diabetes, Diabetes And High Levels Of Total Cholesterol In Employees Who Were Having Faulty Eating Habits (Fried Snacks Samosa, Wada Pav, Misal) Highlights The Urgent Need For Targeted Nutritional Interventions And Health Promotion Strategies In Multinational Companies To Foster Healthier Dietary Habits And Reduce The Risk Of Chronic Diseases.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-69

### NUTRITIONAL MANAGEMENT OF BOERHAAVE,S SYNDROME- A CASE STUDY

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#### Introduction

Spontaneous Esophageal Rupture Is Called“ Boerhaave Syndrome, Which Is A Very Serious & Rare Condition Caused During Endoscopy Or Other Procedures. Ruptures Also May Occur During Severe Vomiting, Retching, Or Swallowing A Large Piece Of Food That Becomes Stuck In The Esophagus.

A 62 Year Female Admitted To The Emergency With Dyspnea, Severe Chest Pain After Multiple Episodes Of Vomiting. One Day Before Her Pain Started & Admitted To A Local Hospital To Rule Out Cardiac Problem, But Nothing Reveals So Referred To Our Hospital For Further Management. Was Tachycardic , Tachypneic & A Known Case Of Dm And Hypertension With Apache – 18, Sofa -9, Endoscopy Revealed A Left-Sided Rupture Of The Lower Esophagus And Ct Shows Peumomediastinum, Left Collapsed Lung And Pleural Effusion. Hence Esophageal Rupture With Boerhaave’S Syndrome Was Diagnosed. Thoracotomy With Mediastinum Debridement, Pleural Drainage And Esophageal T-Tube Drainage Was Performed With Jejunostomy .Los-17Days. Again Got Readmitted After 1 Month For Second Look Thoracotomy & Definitive Esophageal Repair And Pleural Patch, Los-10Days

#### Materials / Methods

Nutritional Assessment-

She Was Moderately Malnourished With Sga Score-18 & Nutric Score-5. With History Of Weight Loss, Decreased Food Intake & Vomiting, Her Height Was 168Cm & Weight Was 76Kg During 1St Visit But Decreased To 55 In Next With Sga -22 , Severe Anemic & Had Malabsorption Syndrome

#### Findings / Results

Nutritional Needs & Planning & Interpretation -

Advised Tpn Post-Surgery, Followed By Jejunostomy Feeding, 1482 Kcal(25Kcal) & 77Gms Of Protein(1.3Gm) As Per Ibw Was Prescribed Initially. Was Nbm For 2 Days & Tpn Was Started With Average 1540 Kcal & 61Gms Of Protein Changed To Jejunostomy Feeding With 1800 Kcal :& 71Gms Approx. During Discharge She Was Able To Tolerate 2000 Kcal & 72 Gms Of Protein With Jj Feed & Oral Clear Liquids. During Her 2Nd Admission Looking Into Nutritional Status 35Kcal/ Ibw 1800Kcal, 90Gm Protein Was Prescribed In Jejunostomy Feeding For 8 Days Then She Able To Tolerate Semisolid Diets. It Was Difficult To Achieve Goal Initially But 70% Of Prescribed Calories & 80% Of Protein Were Achieved. During Home Stay Diet Instructions Were Not Followed Appropriately So Came With Malabsorption & Declined Nutritional Status So Early & Aggressive Feeding Decision Was Taken To Achieve The Goal.

#### Discussion / Conclusion

Spontaneous Esophageal Ruptures (Boerhaave,S Syndrome) Are Critical & Frequently Overlooked Diagnosis Due To Its Rareness And Nonspecific Symptoms. Early Clinical Recognition & Nutritional Intervention Are Important For Patient Survival.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-71

### NUTRITION INTERVENTION IN OSMOTIC DEMYELINATION SYNDROME-A CASE REPORT

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#### Introduction

Central Pontine Myelinolysis is a serious problem commonly occurs in rapid correction of hyponatremia. The serum sodium concentration is the primary determinant of the serum osmolality, the fall in serum osmolality promotes water movement into the brain and lead to cerebral edema and neurologic symptoms. CPM is commonly seen in alcohol withdrawal syndrome, in severe malnutrition, extreme burn injuries.

#### Materials / Methods

A 30 Yr Female presented with complaints of loose motions 15-20 times, altered sensorium since 3 days taken lemon & salt water through out, managed locally with fluid therapy. At our hospital initially diagnosed as acute gastroenteritis induced AKI, sepsis & hypernatremia. After 2-3 days diagnosed as CPM & EPM, MRI brain showed symmetrical increased diffusion & T2 flair signal of B/L basal ganglia S/O osmotic demyelination & hypernatremic encephalopathy. She was managed in ICU with ventilator support, salt therapy, IV antibiotics, blood transfusion, haemodialysis & other supportive treatments. Improved clinically discharged with normal biochemical parameters, improved limb power. LOS at hospital was 109 days.

She was moderately malnourished with SGA score 20, past history of weight loss & decreased food intake. Height 152cm, weight 60 kg

#### Findings / Results

She was prescribed renal RT feed with 1500kcal & 48gm protein with strict salt restriction as her serum sodium level was 176mmol/L on admission. On D4 of her admission she was diagnosed CPM so extra salt 5 gm Tds added to her feed. Same diet continues up to 2 weeks with serum sodium level 140mmol/L, kidney parameters improved so her feed modified to 1800kcal with 72gm of protein with extra salt 3 gm Tds with serum sodium level 135mmol/L, she was hypokalemic so potassium supplementation given along with other trace elements. Trial oral semisolid feed was given on 6th wk along with RT and was able to take proper 1500kcal 70gm protein soft diet since 10th wk till discharge.

#### Discussion / Conclusion

This is to report a rare case, which could be prevented if proper medical help could have been taken since starting of diarrheal symptom. Serious symptomatic hypo or hypernatremia are medical emergencies which should be managed by trained personnel, since the treatment is as dangerous as the condition itself.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-72

### SYNBIOTIC SUPPLEMENTATION IMPROVED DIARRHEA IN SEVERELY BURNED PATIENT WITH LACTOSE INTOLERANCE: A CASE REPORT

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#### Introduction

Diarrhea Frequently Occurs In Severely Burned Patients Due To Intestinal Integrity Disruption And Dysbiosis. This May Be Caused By Infection, Antibiotic Therapy, Hypoalbuminemia, High Osmolality Enteral Formulas, And Lactose Intolerance. Synbiotic, A Mixture Of Probiotics And Prebiotics, Can Maintain The Gut Barrier Function, Inhibit The Growth Of Pathogenic Bacteria, Stimulate Immunoglobulin Production, And Subsequently Prevent And Treat Diarrhea. However, The Synbiotic Effect Has Not Been Fully Studied In Burn Setting.

#### Materials / Methods

A 59-Year-Old Male Was Admitted To High Care Unit (Hcu) With Severe Burn Injury Involving 39% Total Body Surface Area (Tbsa) And Lactose Intolerance. The Patient Was Given Solid Food And Lactose Free Oral Nutritional Supplements (Ons) During The Treatment. Calorie Intake Was 32 (16-41) Kcal/Kg Body Weight/Day And Protein Intake Was 1.5 (0.7-1.8) Kcal/Kg Body Weight/Day. After 21 Days Of Treatment, The Patient Experienced Diarrhea, Then Subsequently The Patient Was Given Synbiotic Twice A Day To Improve Diarrhea. The Synbiotic Contains Lactobacillus Acidophilus And Bifidobacterium Longum 5X10<sup>9</sup> Cfu, And Fructooligosaccharides (Fos) 15%. Diarrhea Resolved After 9 Days Of Synbiotic Supplementation With The Bristol Stool Scale 7 Reduced To 5. The Patient Was Discharged After 49 Days Of Hospitalization With Improvement Of Clinical Condition.

#### Findings / Results

Earley Et Al., Showed That Burn Injury Induces A Dysbiosis Of The Intestinal Microbiota Of Humans. However, Administration Of Synbiotic Has Been Limited In Burn Injury Due To Bacterial Translocation And Risk Of Infection. In Vitro Study By Firman Et Al., Showed That Lactose Could Promote Human Health By Modifying Gut Microbiota Of Healthy Adults. Systematic Review Study By Oak And Jha Showed That Probiotics Have An Overall Positive Effect On Lactose Intolerance. In Our Patient, Synbiotic Supplementation That Contains Lactobacillus Acidophilus And Bifidobacterium Longum 5X10<sup>9</sup> Cfu, And Fructooligosaccharides (Fos) 15% Twice A Day For 9 Days Clinically Improves Diarrhea.

#### Discussion / Conclusion

Synbiotic Helped Improve Diarrhea In Severely Burned Patient With Lactose Intolerance. Further Research Is Needed To Determine The Efficacy Of Synbiotics Supplementation In A Large Group Of Burn Patients.

Keywords: Synbiotic, Diarrhea, Burn, Lactose Intolerance

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-73

### PREVALENCE OF NUTRITIONAL RISK AND ITS IMPACT ON CLINICAL OUTCOMES AMONG SURGICAL PATIENTS : A RETROSPECTIVE CROSS-SECTIONAL STUDY

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#### Introduction

Malnutrition Is Prevalent Concern Among Hospitalized Surgical Patients And Associated With Potential High Risk Of Morbidity, Mortality And Prolong Hospital Stay. Nutritional Screening Is Important In Predicting Clinical Outcomes. This Study Aims To Determine The Prevalence Of Nutritional Risks In Surgical Patient And Prediction Of Clinical Outcomes Such As Length Of Stay (Los), Morbidity And Its Potential Impact On Patient Care Strategies.

#### Materials / Methods

A Eetrospective Cross-Sectional Study Of All Surgical Patients Admitted To General Surgical Ward In Hospital Canselor Tuanku Muhriz, Ukm From January To June 2024. Nutritional Risk Was Assessed Using The Standardized Nutritional Risk Screening 2002 (Nrs-2002) During Admission. Demographic Data, Anthropometric Measurement, Body Mass Index (Bmi), Cancer Status, Length Of Stay, Morbidity And Mortality Were Recorded. Chi Square Was Used To Analyse The Association Between Nutritional Risk And Clinical Outcomes. Simple And Multiple Logistic Regression Analysis Was Performed In The Identification Of Factors Associated With Nutritional Risk.

#### Findings / Results

A Total Of 567 Patients Were Recruited, Mean Age Was  $56.3 \pm 17.30$ , Varying From 14 To 95 Years Old. The Majority Was Male (69.8%), Mean Bmi Was  $26.2 \pm 7.57$ , 49.7% Were Overweight And Morbidly Obese. 143 (25.2%) Patients Are Nutritionally At Risk, And 87.0% Were Referred To Dieticians For Intervention. Nutritional Risk Was Significantly Associated With Age, Bmi, Prolonged Length Of Stay, Higher Morbidity And Mortality. Simple Regression Statistics Revealed Significant Relationship Between Nutritional Risk And Los ( $P=0.014$ ), Morbidity ( $P<0.001$ ) And Mortality ( $P=0.010$ ), As Opposed To Cancer Status, Which Was Not Significantly Associated With Nutritional Risk. Multiple Logistic Regression Revealed Morbidity Were Significant Predictor ( $P<0.001$ ) With Three-fold Higher Risk Among Nutrition Risk.

#### Discussion / Conclusion

Nrs-2002 Is A Simple, Quick, Valid And Safe Tool To Identify Patients With Nutritional Risk And To Predict Complications With Higher Sensitivity And Specificity. Recurrent Failure To Recognize And Treat Malnutrition, Especially In Hospital Setting Is Crucial To Prevent Morbidity And Mortality. Implementing Standardize Nutritional Screening Protocol Plays A Pivotal Role In The Overall Improvement Of Patient Outcomes. Early Identification Of At-Risk Patients Can Guide Early And Targeted Interventions, Potentially Reducing Complications And Enhancing Overall Patient Care.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-74

### THE ROLE OF PROTEIN ADEQUACY IN REDUCING NEUTROPHIL TO LYMPHOCYTE RATIO IN GERIATRIC PATIENTS WITH ELECTRICAL BURN INJURIES: A CASE REPORT

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#### Introduction

Electrical Burn Injuries Lead To An Increase In Pro-Inflammatory Cytokines, Which Can Result In Sepsis. The Neutrophil-Lymphocyte Ratio (Nlr) Is Often Elevated In Septic Conditions, Serving As An Important Marker For Inflammation. Adequate Protein Intake Is Crucial In Reducing Proinflammatory Markers, Including Nlr. Low Protein Intake Is Associated With Higher Nlr Levels And An Increased Risk Of Mortality. This Case Study Aims To Investigate The Relationship Between Protein Adequacy And Nlr In Geriatric Patients With Electrical Burn Injuries.

#### Materials / Methods

A 64-Year-Old Male With Superficial Dermal To Full-Thickness Burns Covering 36% Of Total Body Surface Area (Tbsa) Due To An Electrical Injury Was Treated Admitted To Cipto Mangunkusumo Hospital. During His 29-Day Treatment, His Protein Intake And Nlr Was Closely Monitored Initially, With A Protein Intake Of 1.7 G/Kgbw, The Nlr Value Was 19.54. As The Patient'S Condition Deteriorated, His Protein Intake Decreased To 0.6 - 0.9 G/Kg Bw, And The Nlr Increased Significantly To Between 25.99 And 31.62. This Correlation Suggests That Lower Protein Intake Was Associated With Higher Nlr Levels, Reflecting Increased Inflammation And A Deteriorating Condition.

#### Findings / Results

The Reduction In Protein Intake Was Associated With An Increase In Nlr Levels In The Patient. Elevated Nlr Values Indicate An Imbalance In The Immune Response, Reflecting The Dynamic Relationship Between Innate Immunity (Neutrophils) And Adaptive Immunity (Lymphocytes). This Imbalance Can Exacerbate The Inflammatory Response And Contribute To Poorer Outcomes In Burn Patients. The Observed Relationship Between Protein Intake And Nlr Aligns With The Study By Le Qiu Et Al., Which Demonstrated A Significant Difference In 90-Day Mortality Rates Between Patients With Nlr >10.5 And Those With Nlr ≤10.5 (17.03% Vs. 5.92%, Respectively; P<0.01). Adequate Protein Intake Is Essential For Maintaining Immune Function And Controlling Inflammation.

#### Discussion / Conclusion

Adequate Protein Intake Is Crucial For Controlling Inflammation In Patients With Electrical Burn Injuries, As Reflected By The Neutrophil-Lymphocyte Ratio. Further Research Is Needed To Determine The Impact Of Adequate Protein Intake In Reducing Nlr Levels In A Large Cohort Of Patients With Electrical Burn Injuries.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-75

### MANAGING PROTEIN-ENERGY UNDERNUTRITION: A TRANSITION FROM PARENTERAL TO ENTERAL FEEDING IN A POST-MINI GASTRIC BYPASS PATIENT

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#### Introduction

Revisional Bariatric Procedures Are Required When The Primary Bariatric Surgery Fails. The Most Common Indication For Revision Following A Mini Gastric Bypass – One Anastomosis Gastric Bypass (Mbg – Oagb) Is Severe Malnutrition. Pre-Operative Nutrition Support Is Essential Among Malnourished Patients To Reduce Postoperative Complications And Support Early Recovery.

#### Materials / Methods

A 49-Year-Old Female Underwent A Mini Gastric Bypass In June 2022 And Developed Wernicke-Korsakoff Syndrome Four Months Later. She Was Admitted In May 2023 For The Treatment Of Protein-Energy Undernutrition. Following A 30% Weight Loss Post-Bariatric Surgery, She Weighed 101Kg During Admission, Categorizing Her As Obese Class Iii. Her Serum Hemoglobin, Calcium, Vitamin D, And Albumin Were Abnormally Low. She Presented With Lethargy, Pallor, And Consistently Reported Early Satiety. Through Oral Intake And Supplemental Parenteral Nutrition (Spn), She Achieved 70% And 64% Of Her Energy And Protein Needs. A Naso-Jejunal Tube Was Inserted To Wean Off Spn And To Facilitate Home Care.

#### Findings / Results

The Nutritional Goal Was To Enhance Her Nutrition Status Via Oral And Enteral Routes In Preparation For Revisional Surgery. The Prescription Was 1425Kcal (25Kcal/Kg Ibw) And 86G (1.5G/Kg Ibw) Protein Per Day. Pump-Assisted Feeding Began At A Low Rate, Progressively Increasing To Reach The Goal Volume In 7 Days, Supplementing 50% And 55% Of Her Energy And Protein Needs. A High Protein, Peptide-Based Formula Was Used To Improve Absorption And Gi Tolerance. To Encourage Oral Intake, Education On Protein And Energy Dense Food Was Given To Her Caregivers. Spn Was Weaned Off When Oral And Enteral Feeding Achieved 80% Of Her Energy Requirement. Total Energy And Protein Intake, And Gi Tolerance Were Monitored. She Tolerated Enteral Feeding Without Gi Complaints, Achieving 88% And 90% Of Her Energy And Protein Requirement Through Oral And Enteral Feeding After Weaning Off Spn.

#### Discussion / Conclusion

This Case Highlights The Importance Of Providing Individualized Nutrition Support To Accommodate The Atypical Gi Anatomy And Function Of Bariatric Patients. The Formula Selection, Method For Feeding Initiation, And Incremental Advancement Should Be Based On The Patient'S Tolerance And Must Be Closely Monitored. In Conclusion, Careful Planning For Transitioning From Pn To En Is Necessary To Ensure Nutritional Adequacy And Improve Perioperative Outcomes.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-76

### A COMPARISON OF CHYME REINFUSION THERAPY METHODS: TWO CASE STUDIES

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#### Introduction

High Output Enterostomy Associated Malnutrition Is A Common Feature Of Intestinal Failure (If). Chyme Reinfusion Therapy (Crt) In Which Chyme Is Instilled Into The Distal Gut Is A Recommended Technique For Restoration Of Physiological Digestive Process Of Type 2 If Patients. Nevertheless, Widespread Use Of Time-Consuming Manual Techniques Has Limitations. Recently, Innovative Crt Technology, Has Demonstrated Enhanced Intestinal Absorption And Decreased Intestinal Losses, Associated With Improved Nutritional And Clinical Outcomes. A Pilot Comparison Of Machine-Based System Versus Manual Procedure Was Conducted On Two Cases Using A Check List And Key Informant Interviews.

#### Materials / Methods

Case 1: A Seventeen-Year-Old Severely Malnourished Girl, Presented With Ileal Perforation. A Double Barrel Ileostomy Was Created Following The Resection Of Jejunum And Proximal Ileum.

Case 2: Fifty-Six-Year-Old Male Patient With Descending Colon Tumour, Presented With Features Of Intestinal Obstruction, Had Distended Small Bowel Loops With An Ileal Tear. Surgical Resection Of The Diseased Small Intestine And Creation Of Double-Barreled Ileostomy Was Done.

#### Findings / Results

Management 1: Nasogastric (Ng) Feeds Were Associated With High Ileostomy Output, In Spite Of Medical And Dietary Management. Therefore, Manual Chyme Reinfusion Was Done Via Distal Loop Through A Ng Tube. Supplementary Parental Nutrition Was Started To Meet The Calorie Gap. She Couldn'T Achieve The Targeted Albumin And Weight Gain; Ileostomy Reversal Was Not Possible.

Management 2: A Special Feeding Tube Was Inserted Into The Downstream Limb And Connected To A Small Centrifugal Pump Within The Stoma Bag. An External Electronic Driver Coupled To Drive The Pump And Facilitate Crt. This Patient Had A Significant Weight Gain With Favourable Albumin Level And Underwent Ileostomy Reversal In Eleven-Weeks.

#### Discussion / Conclusion

Manual Crt Has Not Been A Pleasant Experience And Was Unpopular Among Nurses And Caregivers, Causing Frequent Interruptions In The Procedure. Alternatively, Machine-Based Crt Was Safe, Well Tolerated By The Patients And Accepted By Caregivers. The Machine System Has Physiological Advantages Over Parenteral Nutrition With Relatively Few Complications. It Could Be A Cost Effective And Valuable Addition To If Nutritional Management But Requires Verification In A Larger Planned Comparative Study.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-79

### EARLY ENTERAL NUTRITION VERSUS DELAYED ENTERAL NUTRITION IN CRITICALLY ILL CANCER PATIENTS

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#### Introduction

This Study Was Conducted To Investigate The Association Between Early Enteral Nutrition And Clinical Outcomes In Critically Ill Cancer Patients.

#### Materials / Methods

This Retrospective Observational Study Was Conducted With 145 Patients Admitted To The Intensive Care Unit (Icu) Of National Cancer Center Of Korea From September 2021 To January 15, 2022. The Patients Were Divided Into Two Groups: Early Enteral Nutrition Group (N=97) Who Received Enteral Nutrition Within 48Hours Of The Icu Admission, And Delayed Enteral Nutrition Group (N=48) Who Received Enteral Nutrition After 48Hours Of The Icu Admission. The Chi-Square Test And Generalized Linear Regression Analysis Were Used To Compare The Distributions Of Subjects And Mean Differences According To Time Of Enteral Nutrition, Respectively. Survival Was Plotted According To The Kaplan Meier Method. All Statistical Analyses Were Performed Using Sas Software (Version 9.4). Statistical Significance Was Set At P<0.05.

#### Findings / Results

145 Patients Were Evaluated Males 88(60.6%) And 57 Females(39.3%), Mean Age 66.1±12.2Years. An Early Enteral Nutrition Proportion Of Patients Was Detected In 66.9%. The Mean Acute Physiology And Chronic Health Evaluation(Apache) II Score Was 26.4±6.5, No Difference In Early And Delayed Enteral Nutrition Group. A Delayed Enteral Nutrition Group Had Longer Mean Icu Length Of Stay Of 10.7±9.9 Versus 9.3±17.6 Days, But These Differences Were Not Significant(P=0.3). An Delayed Enteral Nutrition Group Had Higher 30 Days Mortality(Odds Ratio, 2.7; 95%CI, 1.08-6.8; P<0.05) Compared To Early Enteral Nutrition Group. A Comparison Of The Survival Curves By Kaplan–Meier Analysis Showed A Significantly Higher Overall Survival In Patients Early Enteral Nutrition Than Delayed Enteral Nutrition (P<0.05).

#### Discussion / Conclusion

The Results Show That Early Enteral Nutrition May Be Associated With Reduced Mortality And Increased Survival In Critically Ill Cancer Patients. We Should Continue To Look Into The Impact Of Early Enteral Nutrition On Important Clinical Outcomes In Critically Ill Cancer Patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-80

### ENSURING ADEQUACIES: A CASE REPORT ON A SLEEVE GASTRECTOMY LOST TO FOLLOW UP

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#### Introduction

Bariatric Surgery Is An Effective Modality To Manage Obesity. To Optimize Weight Loss And Prevent Nutrient Deficiencies That Could Impact Quality Of Life, Long-Term Monitoring Is Recommended. However, Only A Minority Of Patients Maintain Regular Follow-Up.

#### Materials / Methods

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#### Findings / Results

A 53-Year-Old Woman Referred To The Dietitian Was Admitted For Acute Gastroenteritis (Age) With Mild Dehydration. Her Medical History Includes Laparoscopic Sleeve Gastrectomy (Lsg) Done In Another Institution 4 Months Prior With No Further Visits After Discharging. Her Weight At Assessment Was 102.9Kg With A Bmi Of 41.9Kg/M2. She Has Achieved 24.9% Total Weight Loss Post-Lsg. Upon Admission, Her Potassium Was 2.5Mmol/L And Albumin 29G/L, Both Replaced Till Reference Range Was Reached. Dietitian Suggested Further Tests After Patient Shared That She Felt Fatigue Even Before The Age And Taste Changes. These Tests Revealed Low Folate (5.7Mmol/L), Vitamin D (64Mmol/L), Transferrin (1.88G/L). In The Ward, She Ate < 500Kcal, Secondary To Nausea. Her Intake For The Past Month Consists Of Only 2 Meals, Averaging 800Kcal With 35G Protein. Her Home Food Choices Were Suboptimal Where High-Fat Foods And Sugary Drinks Were Often Selected. She Drank <1L Total Fluid/Day And Took No Nutritional Supplements, Claiming To Not Have Been Given Them. Her Nutrition Knowledge Was Limited To Tips Shared In Online Bariatric Surgery Support Groups, Having Not Been Exposed To Any Professional Dietetic Advice Pre- And Post-Lsg. To Optimize Her Nutrition Status, The Dietitian Started Her On 2 Servings Of High-Protein Meal Replacements. She Was Educated On A Stage 3 Post-Lsg Diet Of 800-1000 Kcal With 60-80G Protein. Eating Pattern And Behaviour Expectations Were Extensively Discussed To Align Patient To Her Progress. To Address The Micronutrient Deficiencies, The Dietitian Conveyed A Daily Prescription Recommendation Of Multivitamins, Calcium And Vitamin D Supplements To The Primary Doctor.

#### Discussion / Conclusion

While Deficiencies Post-Lsg May Be Uncommon, This Could Be Exacerbated By A Poor Pre-Surgery Diet That Is Continued. This Case Illustrates How A Team Approach With Special Care On Nutrition And Metabolism Could Enhance Bariatric Surgery Outcomes. It Also Emphasizes The Medical Importance Of Post-Lsg Monitoring By An Experienced Multidisciplinary Team.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-81

### EARLY INITIATION AND RAPID ADVANCEMENT OF ENTERAL NUTRITION IN CRITICALLY ILL PATIENTS

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#### Introduction

Early Initiation Of Enteral Nutrition (En) Is Recommended For Patients Hospitalized In Intensive Care Units (Icus); However, The Optimal Rate Of En Advancement Remains Uncertain. Therefore, We Aimed To Assess The Association Between En Advancement And Clinical Outcomes, Including In-Hospital Mortality, Icu Mortality, Length Of Stay, And Length Of Icu Stay.

#### Materials / Methods

We Conducted A Single-Center Retrospective Cohort Study To Evaluate The Effect Of Rapidly Increasing En On Clinical Outcomes In Icus. Data From Patients Requiring En In The Icu From January 2021 To December 2023 Were Included. Rapid En Advancement Was Defined As En Exceeding The Median Change Between The First And Seventh Days. Multivariable Logistic Regression Analysis Was Used To Analyze Factors Associated With In-Hospital And Icu Mortality. Additionally, Multivariable Linear Regression Was Used To Analyze Factors Associated With The Length Of Icu And Hospital Stays. Subgroup Analyses Were Performed For En Initiation Within 48 Hours Of Icu Admission.

#### Findings / Results

Among 341 Included Patients, The Mean Time To Initiate En Was  $4.7 \pm 6.9$  Days, With A Median Change In En Volume Between The First And Seventh Days Of 487 ml. Rapid En Advancement Was Associated With A Significant Reduction In Icu Mortality (Adjusted Odds Ratio [Or]=0.24, 95% Confidence Interval [Ci] 0.09–0.57, P=0.002) And A 25-Day Reduction In Hospital Stay (95% Ci -25, -9.2, P=0.002). In The Early En Initiation Subgroup, Rapid En Advancement Was Associated With Reduced In-Hospital Mortality (Adjusted Or=0.42, P=0.039) And Length Of Hospital Stay With A 48-Day Reduction (95% Ci -77, -19, P=0.001).

#### Discussion / Conclusion

Rapid En Advancement Reduced In-Hospital Mortality And Length Of Hospital Stay In Critically Ill Patients. This Finding Contributes To Clinical Practices That Enhance Timely And Adequate Nutrition Therapy In Icus. Further Randomized Controlled Trials Are Planned To Establish Practical Guidelines For Real-World Clinical Settings.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-84

### EFFECT OF NUTRITION ON ADVERSE EVENTS AND CHANGES IN BODY COMPOSITION DURING NEOADJUVANT CHEMORADIOTHERAPY IN RECTAL CANCER

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#### Introduction

Nutritional Assessment Is Crucial For Cancer Patients, And The Impact Of Malnutrition On Treatment Response Has Been Extensively Studied. This Study Aims To Examine The Influence Of Nutrition On The Occurrence Of Adverse Events During Neoadjuvant Chemoradiotherapy (Crt) For Locally Advanced Rectal Cancer, As Well As To Investigate Changes In Body Composition Resulting From Crt.

#### Materials / Methods

The Study Included Patients With Newly Diagnosed Locally Advanced Rectal Cancer Who Underwent Surgery After Receiving Neoadjuvant Crt Between January 1, 2013, And December 31, 2022, At Soonchunhyang University Cheonan Hospital. We Analyzed Laboratory Tests, Abdomino-Pelvic Ct, And Pelvic Mri Results Obtained Within One Month Of Starting Crt And Between 8 To 12 Weeks After Completing Crt. Adverse Events Were Assessed Using The Eortc/Rtog Radiation Toxicity Grading System. The Glim Criteria For Malnutrition Were Based On Bmi, With The Malnutrition Group Defined As Having A Low Bmi (<18.5 If Age <70 Years Or <20 If Age ≥70 Years).

#### Findings / Results

A Total Of 128 Patients Were Enrolled, With 17 Classified As Malnourished Based On The Glim Criteria. There Was No Significant Difference In The Occurrence Of Crt-Induced Adverse Events Between The Malnutrition And Control Groups ( $P=0.652$ ). However, Other Nutritional Parameters (Albumin, Hemoglobin, Prognostic Nutritional Index (Pni)) And Body Composition Measures Showed Statistically Significant Differences Compared To The Control Group.

When Dividing Patients Into Two Groups Based On The Presence Or Absence Of Crt-Induced Adverse Events, And Examining Potential Influencing Factors Through Multivariate Regression Analysis, Significant Associations Were Found With Tumor Regression Grade (Trg) ( $P=0.016$ ), Pre-Crt Subcutaneous Fat Index (Sfi) (Or 1.019, 95% Ci 1.003-1.035,  $P=0.018$ ), Pre-Crt Skeletal Muscle Index (Smi) (Or 0.945, 95% Ci 0.897-0.995,  $P=0.033$ ), And The Change In Smi From Pre-Crt To Post-Crt (Or 0.782, 95% Ci 0.680-0.901,  $P=0.001$ ).

Comparing Changes In Body Composition Before And After Crt, There Was A Statistically Significant Increase In Smi ( $P=0.004$ ) And Pmi ( $P=0.029$ ), While Sfi ( $P=0.001$ ) And Vfi ( $P<0.0001$ ) Decreased. Additionally, The Change In Vfi Was Significantly Greater In Patients Aged 70 Years Or Older Compared To Those Younger Than 70, With An Average Decrease Of  $-8.99\pm 9.76$  ( $P=0.012$ ).

#### Discussion / Conclusion

After Neoadjuvant Crt, Both Smi And Pmi Increased, While Fat Indices Decreased. Age-Related Differences Were Observed Only In The Vfi. Furthermore, Age And Pmi Did Not Influence The Occurrence Of Crt-Induced Adverse Events; However, A Larger Change In Smi Before And After Crt Was Associated With A Reduced Likelihood Of Adverse Events (Or 0.782). These Results Are Thought To Be Related To A Reduction In Cancer-Induced Muscle Wasting As A Consequence Of Neoadjuvant Crt, Particularly When Considering Tumor Regression Grade Values.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-85

### EXPLORING POTENTIAL TYPE 2 DIABETES REMISSION IN OBESE PATIENTS: SHORT-TERM IMPACT OF INTENSIVE METABOLIC INTERVENTION BEFORE BARIATRIC SURGERY

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#### Introduction

Conventional Wisdom Long Held That Type 2 Diabetes (T2Dm) Is Irreversible. However, A Paradigm Shift Of Revolutionary Discoveries Highlighted Lifestyle Changes As A Promising Intervention To Optimize Glycemic Control In T2Dm Patients. This Study Aims To Evaluate The Preoperative Therapeutic Impact Of A Combined Metabolic Intervention Prior To Bariatric Surgery.

#### Materials / Methods

This Retrospective Cohort Analysis Examined 41 Adults With Morbid Obesity Coupled With T2Dm. They Underwent A 14-Day Intensive Metabolic Intervention Which Comprised Of Supervised Exercise (Combination Of Moderate To Vigorous Aerobic And Resistance Exercise) And Calorie Restriction (Low Or Very Low-Calorie Diet) Prior To Bariatric Surgery. The Primary Outcome Was To Evaluate Improvement In Glycemic Control After Discontinuation Of Glucose-Lowering Medicines, Indicating The Potential For T2Dm Remission. Other Outcomes Include Reduction Of Oral Hypoglycaemic Agent (Oha), Insulin Requirement And Weight Loss. Statistical Analysis Using T-Test Was Performed To Assess The Changes Pre- And Post-Intervention.

#### Findings / Results

Among 41 Patients, The Mean Age Was 42.3±7.8 Years . 34 (83.9%) Patients Were Female. Mean Baseline Weight Was 125.0±27.1Kg With Body Mass Index Of 47.7±7.4. Pre-Intervention, 61.0% Of Patients Were Dependent On Oral Hypoglycaemic Agents (Oha). 29.3% Of Patients Are In Combination Of Oha And Insulin, And 9.7% On Diet Control Alone. After 14-Days Intervention, All Patients Were Able To Discontinue Glucose Lowering Medications (Oha±Insulin). Fasting Blood Sugar (Fbs) Decreased Significantly, From A Mean Of 8.2 Mmol/L Pre-Intervention To 6.1 Mmol/L Post-Intervention (P=0.001). Proportionally, There Was A Significant Weight Loss Of 6.3±1.6Kg (P=0.001). The Substantial Glycaemic Control Was Coupled With Discontinuation Of Glucose Lowering Medications. Overall Outcome Indicates Notable Improvement In Their Metabolic Components Even Prior To Bariatric Surgery.

#### Discussion / Conclusion

Combined Strategy Of Intensive Supervised Exercise And Calorie Restriction May Provide New Insight Into Strategies For T2Dm Remission. This Efficacious Adjunctive Intervention Should Be Considered As An Integral Part Of Preoperative Prehabilitation In Bariatric Surgery.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-86

### THE IMPACT OF NUTRITIONAL INTERVENTION BY THE NUTRITIONAL SUPPORT TEAM ON THE PREVENTION OF EXTRAUTERINE GROWTH RESTRICTION IN VERY LOW BIRTH WEIGHT INFANTS

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#### Introduction

Extrauterine Growth Restriction (Eugr) Remains Common In Very Low Birth Weight (Vlwb) Infants. This Study Aimed To Determine The Effect Of Nutritional Intervention By The Nutritional Support Team In Eugr In Vlwb Infants.

#### Materials / Methods

An Observational Retrospective Study Of 331 Very Preterm Infants Was Performed. Data Were Collected Concerning Vlwb Infants With Gestational Age (Ga) <32 Weeks Between 2011 And 2020. Eugr Was Defined As A Decline In Weight Z-Score >1.2 From Birth To Discharge, Using Fenton Growth Charts. We Analyzed The Infant'S Data Before And After The Nutritional Intervention By The Nutritional Support Team (Nst) Was Actively Implemented.

#### Findings / Results

Among 331 Eligible Preterm Infants, The Overall Prevalence Of Eugr At Discharge Was 71.6%. Multivariate Analysis Identified Lower Ga And Longer Time To Reach Full Enteral Feeding As Independent Risk Factors. When Comparing A Subgroup Of 187 Infants (From 2011 To 2015) And 144 Infants (From 2016 To 2020), The Incidence Of Eugr Was Significantly Decreased From 86.1% To 52.8% (P < 0.05). Infants In The Later Period Began Protein Intake Earlier, Reached The Maximum Dose More Quickly, And The Final Amount Of Protein Consumed Was High (P < 0.05).

#### Discussion / Conclusion

As Vlwb Infants Are At A High Risk Of Eugr, Continuous Attention And Efforts To Achieve Early Full Enteral Nutrition Are Required To Decrease The Incidence Of Eugr. Furthermore, Aggressive Nutritional Intervention By The Nst Plays A Role In Preventing Eugr.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-87

### THE ROLE OF PARENTERAL NUTRITION IN POST BARIATRIC PATIENT

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#### Introduction

Bariatric Surgery Emerged As One Of The Most Efficacious Interventions Achieving Sustained Weight Loss In Obesity. Post-Operative Malnutrition Remains Significant Especially After Malabsorptive Procedures Like Laparoscopic Roux-En-Y Gastric Bypass (Lrygb). No Consensus Exists On Parenteral Nutrition (Pn) Use Following Bariatric Surgery. This Report Presents Two Cases Of Pn Provision In Acute And Chronic Setting.

#### Materials / Methods

We Present 2 Bariatric Patients Who Need Pn Post Bariatric Surgery. The Discussion Highlights Approach In Managing Acute Complications And Chronic Malnutrition.

#### Findings / Results

Case 1: A 42-Year-Old Female Presented With Generalized Weakness And Oedema 3 Years Post Lrygb. Preoperatively Super Obese (Bmi 50.2 Kg/M<sup>2</sup>) With Metabolic Syndrome. Post-Operative Weight And Bmi Were 10.7.4Kg & 41.4 Kg/M<sup>2</sup> Respectively. Detailed History Showed Poor Dietary Adherence Postoperatively With Predominantly Carbohydrate-Rich Meals. Clinically Revealed Signs Of Malnutrition Such As Brittle Nails, Cutaneous Bacterial Infection And Pitting Oedema With Hypalbuminaemia 18 G/L (35-50G/L). Diagnosed With Protein-Energy Malnutrition And At Risk For Refeeding Syndrome, She Received Cautious Nutritional Rehabilitation. After Hospital-Initiated Pn, Treatment Continued As Home Pn For A Total Duration Of 12 Weeks. Follow-Up Showed Complete Resolution Of Oedema, Normalization Of Albumin Level, And Return To Baseline Functional Status, Indicating Successful Nutritional Rehabilitation.

Case 2: A 40-Year-Old Female With Class Iii Obesity (Bmi 45.4) And Metabolic Syndrome Underwent Lrygb. Two Week Postoperatively, She Presented With Lethargy, Dehydration And Rapid Weight Loss Of 20.4Kg. Biochemical Markers Reveals Acute Hepatic Dysfunction [Alt 130U/L(<41U/L), Ast 49U/L(<40U/L)], Consistent With Acute Hepatitis. Cautious Administration Of Fish Oil-Containing Pn Was Initiated After Fluid Resuscitation. Liver Function Improved With Nutritional Therapy And Calorie Provision. The Patient Was Discharged After 4 Weeks With Reinforced Dietary Counselling. This Case Illustrates Potential Hepatic Complications Following Rapid Weight Loss After Bariatric Surgery, Thus Inducing Oxidative Stress And Excessive Lipolysis Overwhelming Hepatic Metabolism. Targeted Nutritional Intervention With Fish Oil-Enriched Pn Appears To Be Effective In Managing This Complication.

#### Discussion / Conclusion

While The Role Of Pn Post-Bariatric Surgery Remains Undefined, These Cases Demonstrate Its Potential In Managing Acute Complications And Chronic Malnutrition. Long-Term Follow-Up Is Crucial To Mitigate Nutritional Issues. Preoperative Education Should Include Potential Pn Needs. Further Research Is Required To Establish Evidence-Based Guidelines For Pn Use.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-88

### THE RELIABILITY OF DIFFERENT DYNAMOMETERS IN MEASURING HAND GRIP STRENGTH

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#### Introduction

Handgrip Strength (Hgs) Test Is An Objective Bedside Test That Can Be Easily Performed On Surgical Patients In The Ward. It Is An Important Tool For Screening For Sarcopenia Among Surgical Patients, Assessment For Malnutrition And Also As A Predictor For Postoperative Complications, . The Baseline Smedley (Spring Type) Handgrip Dynamometer Is Widely Used For Hgs Measurements In Asian Hospital Setting. This Device Is Expensive And Not Readily Available In Some Hospital Settings. This Is A Cross Sectional Study Aimed To Compare The Reliability Of 3 More Economical Digital Handgrip Dynamometers Camry Eh101( B), Constant 14192-760E (C) And Eh106 (D) With Baseline Digital Smedley Spring Dynamometer (A).

#### Materials / Methods

Participants Who Can Understand And Perform The Protocol Were Recruited. The Protocol In This Study Is Adopted From A Systematic Review By Núñez -Cortés Et.Al. Summarising The Commonly Used Protocols Vi. Hgs Test Is Performed Using The 4 Devices At The Same Setting 10 Minutes Apart Using Standardised Protocol. Participants Were Asked To Squeeze The Handle As Hard As Possible For 5S With Verbal Encouragement. Test Is Done With The Right Hand, Followed By The Left Hand And Repeated Three Times For Both Hands With 15S Interval Between Tests. The Values Are Documented In Kg, The Mean Value Of Both Hands Is Used For Analysis.

#### Findings / Results

34 Participants Aged 20 To 48 Years, Male (N=20) And Female (N=14) Were Included. The Mean Difference Between Dynamometer A And B Was  $1.63\text{Kg} \pm 6.38\text{Kg}$  ( $P = 0.146$ ), A And C Was  $7.59\text{Kg} \pm 6.12\text{Kg}$  ( $P < 0.05$ ), A And D Was  $5.96\text{Kg} \pm 6.45\text{Kg}$  ( $P < 0.05$ ). There Is No Significant Difference Between The Mean Of Dynamometer A And B. The Intraclass Correlation Coefficients (Icc) Were 0.96, 0.92 And 0.95 Respectively In Between Dynamometer A With B, C And D.

#### Discussion / Conclusion

The Camry Eh101, Constant 14192-760E And Eh106 Are Shown To Be Reliable In Measuring Hand Grip Strength. However The Camry Eh101 Has Shown To Be More Valid Compared To The Other 2 Dynamometer.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-89

### CHOLINE AS ESSENTIAL NUTRIENT IN MEDICAL NUTRITION THERAPY FOR MALNOURISHED PATIENT WITH INTRACRANIAL GERMINOMA

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#### Introduction

Germinomas Are Rare Extra-Axial Germ Cell Tumors Typically Affecting Young Adults, Often Appearing As Well-Defined, Hypercellular Masses In The Pineal Region. Choline, Essential For Cellular Function And Neural Health, Is Critical In The Medical Nutrition Therapy For Brain Tumor Patients. This Case Report Investigates The Effects Of Choline Supplementation In A Malnourished Germinoma Patient.

#### Materials / Methods

This Is A Case Report Study

#### Findings / Results

A 21-Year-Old Male Presented With Difficulty Moving All Four Limbs For Two Months, Alongside Swallowing Difficulties And Reduced Appetite. Initially, He Could Eat And Drink Well, But Later Only Managed Small Amounts Of Blended Food, Leading To A 10 Kg Weight Loss. Physical Examination Revealed Severe Malnutrition: 43 Kg Body Weight, 172 Cm Height, And A Body Mass Index Of 14.5 Kg/M<sup>2</sup>. Tumor Biopsy Confirmed Germinoma, And Radiotherapy Began Immediately. The Patient Received Enteral Nutrition Via A Nasogastric Tube (Ngt) (35 Kcal/Kg/Day And 1.5 G Protein/Kg/Day) For 7 Days. Initially, He Was Given 6X10 MI Of Medium-Chain Triglyceride (Mct) And A High-Protein Formula With Choline 6X150 MI, Later Increased To 6X200 MI. He Also Received B Complex Vitamins And 20 Mg Of Zinc. After 7 Days, Oral Diet Training With Strained Porridge And High-Protein Formula With Choline Began. Within 10 Days, He Transitioned To Full Oral Intake, Allowing Ngt Removal. He Was Discharged On The 28Th Day Post-Radiotherapy, Able To Move All Four Limbs, Swallow Well, And Maintain Oral Intake.

#### Discussion / Conclusion

Germinoma Patients Often Suffer From Malnutrition Due To Swallowing Difficulties, Poor Oral Intake, And Bedridden Status. Choline, Essential For Neurodevelopment, Lipid Biosynthesis, Metabolic Regulation, And Detoxification, Is Vital For Membrane Synthesis And Accelerates Acetylcholine Production, Crucial For Memory And Muscle Control. Germinoma Cells Are Highly Sensitive To Radiotherapy, But Normal Cells Around The Tumor May Also Be Affected. Choline Helps Maintain The Structural Integrity And Signaling Functions Of Cell Membranes, Supports Neurotransmission, And Facilitates Lipid Transport From Normal Cells, Preventing Further Damage. In This Patient, Choline Supplementation, Alongside Radiotherapy, Significantly Improved The Patient'S Condition.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-90

### CASE REPORT - GOING FORWARD: FROM PARENTERAL FEEDING TO MANAGING STOMA OUTPUT FOR POST-OPERATIVE CASE OF SMALL BOWEL VOLVULUS

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#### Introduction

A Small Bowel Volvulus Is An Abnormal Twisting Of Part Of Small Intestine. It Is A Medical Emergency That Needs Surgical Treatment That Remove Part Of Intestines And A Person May Requires A Stoma

#### Materials / Methods

Ms.Vs Is A Female Indian Lady, 38 Years Old Presented With Lower Abdominal Pain And Multiple Vomiting, Cect Abdomen Found Of Small Bowel Obstruction. She Was Admitted Immediately For Exploratory Laparotomy, Release Of Small Bowel Volvulus And Adhesion Lysis. On Post-Operative Day 14, Dense Adhesion At Previous Appendectomy Site Was Shown And Conservative Management Did Not Show Improvement Required Re-Laparotomy, Adhesion Lysis, Bowel Resection And Stoma For Acute Small Bowel Obstruction Due To Adhesion. Patient Was Referred To Dietitian To Provide Medical Nutrition Therapy (Mnt) For Post – Operative Transitional Feeding And Managing Stoma Output.

#### Findings / Results

Parenteral Nutrition (Pn) Is Initiated On Post Operation Day (Pod) 7 Exploratory Laparotomy At 704 Kcal (45% Tee) To Optimize Her Nutrition. Oral Nourishing Supplement (Ons) With Standard Formula Is Started On Pod 12 With Partial Pn And Patient Able To Achieve At Least 70% Er. However, Due To Adhesion, Patient Is Transitioned Back To Full Pn. Post Operatively, Patient Tolerated Standard Formula And Successfully Weaned Off From Tpn. Due To High Stoma Output, Patient Is Supplemented With Soluble Fiber And Prescribed For High Starch Diet. This Is To Reduce The Speed Of Transit In The Gastrointestinal Tract, Help To Increases Effluent Viscosity And Also To Prevent Dehydration. Upon Discharge, We Prescribed Her With Continuous Ons As To Ensure Adequacy For Recovery And Soluble Fibers To Help With Reducing Stoma Output.

#### Discussion / Conclusion

Pn Is Required Initially To Maintain Nutritional Status. Transitional Feeding To Oral Is Done By Steps To Ensure Nutrition Optimization. Post-Operatively, Patient Requires An Intestinal Ostomy. Dietary Intervention Is Crucial At This Point As To Ensure Patient Is Well Nourished And Received Optimal Nutrition While They Are Comfortable And Adapted With The New-Created Ostomies. Hence, A Detailed Counselling On Foods That Affect Ostomy Output Is Given Together With Suitable Enteral Formula To Achieve Our Goals Which Are Nutrient Optimization And Improve Patient'S Care With Stoma Output.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-91

### OBSERVATIONAL STUDY ON PROTEIN AND ENERGY GAP IN PATIENT REFERRED TO NUTRITION SUPPORT TEAM

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#### Introduction

Energy And Protein Serve A Paramount Nutritional Function, Especially During Illness When Caloric And Protein Demands Escalate. The Energy Gap Delineates The Disparity Between Consumed And Required Calories For Bodily Functions, While The Protein Gap Specifies The Deficiency In Protein Intake Relative To Bodily Needs. Consequently, These Gaps Impact Overall Nutrition, Underscoring The Critical Importance Of Nutritional Support In Enhancing Patient Health And Mitigating Malnutrition-Related Disorders.

#### Materials / Methods

This Is An Observational Study Of One Year Retrospective Data Collection From 1St June 2023 Till 31St May 2024, In Regards To The Cases Referred To The Nst Htjs. Data Related To Demographic Information And Nutrition Related Variables Were Collected. Percentage Of Energy And Protein Debt Were Calculated For Each Patient, By Determining The Difference Between The Calorie And Protein Delivered Prior To Nst Referral With The 80% Of Calorie And Protein Requirement.

#### Findings / Results

121 Patients Were Included In The Study With A Mean Age Of 53.7 Years Old, Predominantly (Race, Gender). Before Commencement Of Nutritional Support, An Average Of 33% Weight Loss From Past Weight Was Observed. The Mean Energy Gap Was 4.7%, While The Mean Protein Gap Was 6.8%.

#### Discussion / Conclusion

Patients At High Risk Of Malnutrition And With Low Sga Scores Should Be Referred To Nst. Future Studies Could Explore The Outcomes Of Nst Interventions.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-92

### THE ROLE OF GLUTAMIN AS ESSENTIAL NUTRITION IN MEDICAL NUTRITION THERAPY FOR MODERATE MALNUTRITION WITH PUSTULAR PSORIASIS AND CELLULITIS

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#### Introduction

Psoriasis Is A Chronic, Inflammatory, Autoimmune Disease That Affects The Skin And Predominantly Occurs In Individuals With A Strong Genetic Predisposition. Malnutrition And Psoriasis Are Complex Conditions That Can Significantly Impact Patient Health And Quality Of Life.

#### Materials / Methods

This Is A Case Report Study

#### Findings / Results

A 34-Year-Old Asian Woman, Has Been Living With Psoriasis For Approximately 10 Years. She Recently Experienced A Significant Worsening Of Her Symptoms, Including The Development Of Pustular Psoriasis, Which Is Characterized By Painful, Pus-Filled Blisters With Cellulitis In Her Right Lower Extremity. The Patient Was Also Diagnosed With Moderate Malnutrition And Hypoalbuminemia.

The Patient Reported A Notable Weight Loss Of 4 Kg Over The Past Six Months, Decreasing From 65 Kg To 61 Kg, With Height 159 Cm And Bmi Of 24.13 Kg/M<sup>2</sup>. The Patient Experienced A Variety Of Gastrointestinal Symptoms, Including Anorexia, Occasional Nausea, Difficulty Swallowing, And Episodes Of Diarrhea. These Symptoms, Likely Exacerbated By Oral Lesions Associated With Her Psoriasis, Contributed To A Significant Reduction In Her Dietary Intake, Primarily Limited To Soft And Liquid Foods.

The Patient'S Diet Was Modified To Include Soft, Nutrient-Dense Foods (35 Kcal/Kg/Day And 1,5 G Protein/Kg/Day) That She Could Tolerate Despite Her Oral Discomfort. She Get Extract Ophiocephalus Striatus 5000 Mg, Glutamin (0,3 G/Kg/Day), Vitamin D3 5000 Iu Daily And Zink 20 Mg Daily To Help Meet Her Protein Needs, Critical For Immune Function And Wound Healing.

#### Discussion / Conclusion

This Comprehensive Nutritional Approach For A Patient Facing Psoriasis, Cellulitis, Moderate Malnutrition, And Hypoalbuminemia, Each Component Plays A Crucial Role. Nutrient-Dense Foods Provide Essential Energy, Supporting Overall Recovery And Addressing Malnutrition. Glutamine Aids Immune Function And Protein Synthesis, Potentially Benefiting Cellulitis Treatment And Albumin Production. Ophiocephalus Striatus Extract Offers Additional Protein And Omega-3 Fatty Acids, Which May Help With Inflammation And Wound Healing. Vitamin D3 Supports Immune Function And May Have Anti-Inflammatory Effects Beneficial For Psoriasis. Zinc Contributes To Immune Health, Wound Healing, And Protein Synthesis, Addressing Multiple Aspects Of The Patient'S Condition. Lesion On Pustular Psoriasis And Cellulitis Improvement In 9 Days. This Carefully Balanced Regimen Aims To Synergistically Combat The Complex Health Issues, Promoting Healing And Restoration Of Nutritional Status.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-96

### PERIOPERATIVE NUTRITION SUPPORT IN ABDOMINAL SURGERY

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#### Introduction

Surgical Resection Is One Of The Managements For Colorectal Cancer. Major Abdominal Surgery Will Impose Surgical Stress That Could Lead To Muscle Loss And Increased Nutrition Requirement. Therefore, Timely Nutrition Support Is Needed.

#### Materials / Methods

Madam C Is A 64- Year- Old Chinese Female With Known Hypertension Who Was Admitted Due To Abdominal Bloating, Pain, Constipation, And Vomiting. Ct Abdomen Shows Mass At The Junction Of Sigmoid And Descending Colon Leading To Partial Obstruction. Colonoscopy Was Done And Hpe Shows Adenocarcinoma. Height: 1.50 M, Weight: 56.5 Kg, Bmi: 25.1 Kg/M2 (Overweight). Biochemical Result Shows Low Sodium, Low Potassium With Normal Egfr. No Signs Of Muscle Or Subcutaneous Fat Loss. Ng Tube In Situ Kept Free Flow. Cvl Inserted. On Iv Ds 83 Ml/Hr. Patient Was Referred On D4 Of Admission For Tpn Initiation. Estimated Requirement: > 1695 Kcal With > 67.8 G Protein.

Nutrition Diagnosis: Inadequate Protein Energy Intake Related To Tpn Support Has Yet To Commence As Evidenced By Provision Of Only 340 Kcal/Day From The Iv Ds For The Past 3 Days.

#### Findings / Results

Tpn Was Initiated To Provide 60% Of Nutrition Requirement And The Pn Regime Was Increased To Meet 100% Of Her Requirement On The Next Day.

Patient Undergone Open Radical High Anterior Resection And Appendectomy On D8 Of Admission After Normalised Serum Electrolytes. Patient Was Kept Nbm And Tpn Was Resumed Within 24 Hours Post Operation. In View Of Hyperglycaemia, Pn Bag Was Changed To Reduce Glucose Provision While Still Meeting 70% Of Her Requirement. One Bottle Of Dipeptiven Was Given Daily Since Pod4. Patient Was Allowed For Oral Fluids On Pod7 After Passing Flatus. Eventually, She Was Started On Nourishing Fluids And Soft Diet On Pod9, Therefore, Included Energy- Dense Ons Into Her Diet And Pn Was Tapered Down To Provide 44% Of Nutrition Requirement. Pn Was Discontinued On Pod10 After Patient Meeting 60% Of Her Requirement From Diet And Ons. Patient Was Discharged On Pod12 And Patient Was Able To Have Normal Bo Consistency After Discharge.

#### Discussion / Conclusion

Perioperative Nutrition Is Crucial To Improve Surgical Outcomes Of A Patient. Pn Shall Be Used For Nutrition Support When Enteral Nutrition Is Contraindicated.

## RESTORING & REDEFINING CLINICAL NUTRITION

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### TWO CASE REPORTS OF REFEEDING SYNDROME IN GERIATRIC CRITICALLY ILL PATIENTS: DILEMMA DURING PARENTERAL NUTRITION SHORTAGES

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#### Introduction

Parenteral Nutrition Shortages Can Result In Poor Clinical Outcomes, Including Wasting Due To Inadequate Amino Acid Administration, Hyperglycemia, And Refeeding Syndrome. Limited Resources For Monitoring Blood Electrolytes, Phosphate, And Magnesium Increase The Risk Of Delayed Treatment Of Side Effects During Nutritional Therapy. These Cases Describe Two Geriatric Icu Patients Who Developed Refeeding Syndrome While Requiring Total Parenteral Nutrition.

#### Materials / Methods

Two Geriatric Patients With Normal Weight, At Risk Of Malnutrition, And With Multi-Comorbidities, Were Treated In The Icu And Required Parenteral Nutrition Because They Could Not Tolerate Enteral Nutrition. At The Same Time, There Were Limited Parenteral Nutrition Resources. Nutrition Therapy Was Started At 10 Kcal/Kg Body Weight (Bw)/Day, Increasing To 20 Kcal/Kg Bw Over Seven Days. Initially, The Patients Tolerated Enteral Feeding, But They Became Intolerant On Day 8. Thus, Total Parenteral Nutrition Using 2-Chamber Parenteral Solution At 25 Kcal/Kg Bw/Day Was Given. However, This Caused Low Amino Acid Intake, And Their Nutritional Status Declined To Clinically Moderate Malnutrition. The Parenteral Regimen Was Switched To Separate Bottles Containing Amino Acids And Dextrose. Due To Inadequate Funding, Thiamine And Parenteral Micronutrients Could Not Be Provided. On Day 5, Both Patients Exhibited Electrolyte Disturbances. The First Patient, A 62-Year-Old Man, Experienced Hypokalemia And Hypomagnesemia, While The Second, An 88-Year-Old Man, Experienced Hypokalemia, Hypomagnesemia, And Hypophosphatemia.

#### Findings / Results

A Refeeding Syndrome Management Protocol Was Implemented; The Bottled Parenteral Administration Was Discontinued And Replaced With A 2-Chamber Parenteral Nutrition Containing Thiamine And Other Electrolytes. Both Patients Showed Clinical Condition And Electrolytes Improvement, Although Maintaining Or Improving Their Nutritional Status Remained Challenging Due To The Limited Nutritional Resources. The 62-Year-Old Patient Was Transferred To The Regular Ward On Day 16, And The 88-Year-Old Patient On Day 21, With An Average Energy Intake Of 20 Kcal/Kg Bw/Day And Protein Intake Of 0.7-0.9 G/Kg Bw/Day.

#### Discussion / Conclusion

2-Chamber Total Parenteral Nutrition Containing Thiamine Can Be Given To Critically Ill Geriatric Patients Who Require Total Parenteral Nutrition To Prevent Refeeding Syndrome. However, Hospital Malnutrition Remains A Significant Concern For Post-Icu Geriatric Patients Receiving Inadequate Nutrition.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-98

### QUALITY OF LIFE AMONG HOME PARENTERAL NUTRITION PATIENTS IN TERTIARY HOSPITAL

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#### Introduction

Home Parenteral Nutrition (Hpn) Is An Established Nutrition Therapy For Patients With Intestinal Failure Who Cannot Meet Their Nutritional Requirements Through Oral Or Enteral Route. However, Hpn Is Also Associated With Several Concerns Like Time Consuming And Impairment Of Patients' Daily Life. This Double Burden Of Lifesaving But Challenging Hpn In Addition To Severe Underlying Diseases Affects Patients' Quality Of Life. This Study Aims To Assess The Quality Of Life Of Patient Managed With Hpn.

#### Materials / Methods

Retrospective Cross-Sectional Study Of Patients Who Received Hpn For More Than One Month. Patients Were Distributed The Self-Administered Eq-5D-5L Health Questionnaire During Initial Ward Admission, Hpn Training And Post Discharge Follow-Ups. The Descriptive System Comprises Five Dimensions: Mobility, Self-Care, Usual Activities, Pain/Discomfort And Anxiety/Depression. Additionally, The Visual Analogue Scale Is Used As A Quantitative Measure Of Health Outcome That Reflects The Patient'S Own Judgement.

#### Findings / Results

Nine Adult Patients On Hpn Were Recruited, 5 Females And 4 Males, Mean Age Of 56  $\pm$  14.2 (Range 30 – 72). The Most Common Underlying Conditions Were Cancer (55%), Short Bowel Syndrome (23%) And Gut Dysmotility (22%). The Average Days Of Hpn Was Calculated As 213 Days  $\pm$  158, (Range 45 – 590 Days). Majority Of The Responds During Follow Up Indicated Some Improvements In Aspects Of Mobility, Self-Care And Anxiety/Depression Compared To During Initial Ward Admission. However, No Significant Changes Were Observed In Patient'S Usual Activities And Pain/Discomfort. This Could Be Rationalised By The Progression Of Related Disease And Time Required For Hpn Infusion Which Indirectly Restricts Patient'S Social Interactions. Significant Improvement Was Also Witnessed In The Vertical Visual Analogue Scale Of Health Among All Patients From 35 To 50 And 75 During Initial Ward Admission, Hpn Training And Post Discharge Follow-Ups Respectively.

#### Discussion / Conclusion

Hpn Serves As A Lifeline For Patients With Type Iii Intestinal Failure. Quality Of Life Is A Crucial Indicator In The Care Of Hpn Patients. Patients Discharged With Hpn Were Found To Experience Improvement In Quality Of Health In Terms Of Mobility, Self-Care, Anxiety/Depression And Daily Health Condition. However, Hpn Did Not Significantly Impact On Patient'S Usual Activities And Pain/Discomfort.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-99

### MEDICAL NUTRITION THERAPY IN PATIENT AFTER BARIATRIC SURGERY

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#### Introduction

Bariatric Surgery Is A Surgical Procedure Used To Manage Obesity And Obesity-Related Conditions. Nutritional Support Is Needed In Patients After Bariatric. Diet Is Given Gradually To Patient After Bariatric In Collaboration With Multidisciplinary Team.

#### Materials / Methods

A Man 31 Y.O With Obesity And Post-Bariatric Surgery, Complained Of Nausea, Vomiting, Decreased Appetite. The Patient Was Consulted To A Clinical Nutrition Specialist And Received Gradual And Optimal Nutritional Management. Nutrition Is Given Gradually Starting From A Liquid Diet With Enteral Formula Then Increased To A Semi-Solid Texture To A Solid Texture. Balanced Macro And Micronutrient Needs Are Essential For After Bariatric Patients.

#### Findings / Results

Diet Should Develop Gradually As Follows: Clear Liquids, Liquids, Soft And Solid Diets. Eat Small Meals Frequently. Food Type: Regular 3 Meals A Day With Small Volumes And 3 Snacks. Food Should Include Protein, Fruits, Vegetables And Carbohydrates. Introduce New Foods One By One To Identify Intolerances. Drink At Least 6-8 Glasses Of Water Daily (1500 – 2000 Cc) To Avoid Dehydration And Constipation. Foods To Avoid: High Sugar Foods (Such As Candy, Soda, And Cookies) Can Cause Dumping Syndrome. Fatty Foods Cause Vomiting And Will Lead To Weight Gain. To Avoid Acid Reflux, Avoid Sugary And Strong-Smelling Foods. Avoid Continuous Fluid Intake During Meals. Additional Supplementations Adjusted To The Patient Needs. The Patient Experienced Significant Weight Loss. The Initial Weight Was 105 Kg To 99 Kg After Bariatric. With A Good Diet, Exercise And Lifestyle Improvements, The Patient Has Now Reached A Weight Of 75 Kg.

#### Discussion / Conclusion

Nutritional Support Is Needed In Patients After Bariatric. Diet Should Develop Gradually As Follows: Clear Liquids, Liquids, Soft And Solid Diets. Eat Small Meals Frequently. Additional Supplementations Adjusted To The Patient Needs.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-100

### PROSPECTIVE COMPARATIVE STUDY OF ENTERAL AND PARENTERAL NUTRITION AFTER ESOPHAGECTOMY: IMPACT ON SHORT TERM CLINICAL OUTCOMES

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#### Introduction

Optimal Nutritional Support Is Critical For Recovery After Esophagectomy. This Study Aimed To Compare The Efficacy Of Early Enteral Nutrition (En) Versus Parenteral Nutrition (Pn) In Achieving Nutritional Goals And Influencing Clinical Outcomes Post-Esophagectomy.

#### Materials / Methods

We Conducted A Prospective Observational Study Over 12 Month Period, Enrolling Patients Undergoing Elective Esophagectomy Requiring Icu Admission. Early Nutritional Support Was Initiated As Part Of An Enhanced Recovery After Surgery Protocol. The Choice Between En And Pn Was At The Discretion Of The Attending Surgeon. Primary Outcome Was To Ascertain Achievement Of Target Average Energy And Protein Within The First Postoperative Week. Secondary Outcome Included Icu Stay Length, Postoperative Days, 30-Day Mortality, And Clavien-Dindo Complications.

#### Findings / Results

The Study Compared Two Cohorts Of 22 Patients Following Elective Esophagectomy Receiving Pn (N=11) And En (N=11). Median Age Was 60.9 Years In The Pn Group And 55.1 Years In The En Group. Pre-Operative Weight, Bmi, And Subjective Global Assessment Were Better In The En Group (P=0.033, P=0.021, P=0.031 Respectively). Nutritional Interruption Was More Prevalent In The En Group (63.7%) Compared To No Interruption In The Pn Group (P=0.006). Average Energy (%) And Protein (G/Kg) Received Were: Pn: 93.1, 1.4 Vs En: 92.4, 1.2 (P=0.893, P=0.036). Median Length Of Icu Stay And Postoperative Stay Between Groups Was Insignificant. 30-Day Mortality And Post-Complications Were Similar In Both Groups (P=0.062).

#### Discussion / Conclusion

Parenteral Nutrition Achieved Superior Nutritional Targets Post-Esophagectomy Compared To Enteral Nutrition, Particularly In Protein Delivery. However, This Did Not Significantly Impact Short-Term Clinical Outcomes. While Pn Ensures Consistent Nutritional Delivery, The Choice Between En And Pn Did Not Affect Immediate Post-Operative Recovery. Longitudinal Studies Are Needed To Assess Long-Term Effects Of These Nutritional Strategies.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-101

### FEEDING JEJUNOSTOMY IN ELECTIVE MALIGNANT ESOPHAGOGASTRIC SURGERY – IS IT NECESSARY OR IS IT A BURDEN? A SINGLE CENTRE EXPERIENCE IN SABAH

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#### Introduction

Feeding Jejunostomy (Fj) Is A Two-Edged Sword. Multiple Publications Have Shown Benefit In Terms Of Nutrition Outcomes, Minimising Weight Loss And Its Utility For Rescue Enteral Feeding. However, Complication Arising From This Simple Procedure Ranges From, Skin Excoriation And Blocked Tube To Pericatheter Leak And Intestinal Obstruction. Routine Placement Of Fj Has Been Questioned But, In Our Centre, Fj Is Routinely Placed In Esophagectomy And Total Gastrectomy (Tg) Cases. Stamm Fj Technique With Pds 4/0 And Size 8-10F Paediatric Feeding Tube (Ft) Was Used.

#### Materials / Methods

This Is A Retrospective Audit Of Cases Done In Hospital Queen Elizabeth, Sabah Between April 2020 To June 2024. Case Notes, Operative Notes And Clinic Follow Up Was Traced And Reviewed. Patient'S Demographic Data, Nutritional Status Pre Op, Diagnosis, Use Of Rescue Feeds And Follow Up Details Was Collected. Descriptive Statistics Was Used. Data Was Analysed Using Spss V20

#### Findings / Results

30 Patients Who Underwent Elective Esophagogastric Surgery (Esophagectomy, Extended Total Gastrectomy And Total Gastrectomy) For Malignancy Cases Were Performed With Secondary Jejunostomy Placement. Jejunostomy Related Complications Were Reported In 20% (N= 6/30) Patients In Which All Were Grade I Clavien-Dindo Classification; 2 Had Pericatheter Leak, 2 Were Site Infections And 2 Had Skin Excoriations. No Patients Required Readmission Or Surgical Intervention Due To Complications Of Fj. 13.3 % (N=4/30) Tubes Were Dislodged With A Mean Of 46 Days Before Dislodgement. 10% (N=3/30) Tubes Were Clogged. 20% (N= 6/30) Of Patients Who Restarted Feeding Orally Require Rescue Feeding Via Fj Due To Post Op Complications (Anastomotic Leak, Strictures And Fistula Formation).

#### Discussion / Conclusion

Feeding Jejunostomy Placement Resulted In Minor Complications In Less Than One Third Of Patients. Patients Undergoing Esophagogastric Surgery For Malignancy Are Anticipated To Have Post Operative Complications Due To Cachectic Metabolic Syndrome. Fj Provides An Alternative Feeding Route For Patients With Post Op Complications To Maintain Nutritional Support. Thus, Fj Placement Is A Safe And Beneficial Procedure That Can Be Implemented During Surgery To Enhance Recovery Post Op.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-102

### A CASE REPORT: USING GRAVITY BAG FOR INTERMITTENT NASOJEJUNAL FEEDING IN A PATIENT WITH MALIGNANT GASTRIC OUTLET OBSTRUCTION

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#### Introduction

Gastric Outlet Obstruction (Goo) Patients Were Once Treated With Parenteral Nutrition And Gastric Decompression. Gastrojejunostomy And Palliative Endoscopic Stenting Are Currently Utilized As Treatments For Malignant Goo. Nasojejunal Tube (Njt) Feeding Is Less Invasive And Provides A Relatively Safe Conservative Management For Goo. However, Njt Has Its Own Set Of Difficulties, From Complications Due To The Insertion Process To Complications Arising From The Feeds. Traditionally, Slow Infusion Was Given Continuously Or Intermittently With An Assisted Pump For Njt. Nonetheless, There Is Now Increasing Availability Of Gravity Bags Where The Infusion Rate Can Be Just Controlled Via A Clamp.

#### Materials / Methods

A 51-Year-Old Man Was Diagnosed With Gastric Adenocarcinoma At A Private Facility In October 2022 In Which He Had An Njt Inserted And Pyloric Stenting Thereafter. He Was Transferred To Our Facility For Further Management Due To Financial Constraints. The Patient Had Multiple Admissions For Vomiting Due To The Progression Of His Disease. He Was Deemed Unsuitable For Surgery Due To His Underlying Chronic Lung Disease And Liver Cirrhosis. The Patient'S Njt Feeding Was Effectively Established In The Ward With Assisted Pump Feeding And Subsequently Transitioned To Using A Gravity Bag For Intermittent Feeding Completing Over 2.5 To 3 Hours Prior To Discharge.

#### Findings / Results

In Cases Of Goo, It Is Strongly Advised To Administer Enteral Nutrition Through Jejunal Feedings. Acquiring A Home Enteral Feeding Pump Is A Challenge When Planning To Be Discharged Home. Therefore, Patients And Their Families Would Receive Guidelines On The Use Of Gravity Feeding Bags. The Patient Was Found To Exhibit Intolerance To Bolus Feeding At A Large Volume. He Had Multiple Admissions Due To Improper Use Of A Gravity Feeding Bag Resulting In Complications Such As Abdominal Distention And Vomiting. These Symptoms Were Able To Be Resolved With Admission Using Proper Usage Techniques Of Gravity Feeding Bag.

#### Discussion / Conclusion

In Conclusion, We Found That The Use Of The Gravity Bag Feeding Method As An Alternative To Assisted Pump Is Suitable For Patients With Feeding Intolerance And Those At High Risk Of Feeding Intolerance. Nevertheless, Proper Education And Family Support Plays A Crucial Role In Avoiding Complications.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-103

### DAIRY CONSUMPTION AND ASSOCIATIONS WITH NUTRITIONAL STATUS IN 4-6-YEAR-OLD PRESCHOOL INDONESIAN CHILDREN

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#### Introduction

Milk And Dairy Products Are Classified As Nutrient-Dense Foods, Offering Both Calories And High-Quality Protein. The Purpose Of This Study Was To Describe The Frequency And Quantity Of Total Dairy Consumption Among Children Aged 4-6 Years, As Well As To Investigate The Relationships Between Dairy Consumption And Nutritional Status.

#### Materials / Methods

Participants Included 146 Healthy Children Aged 4–6 Years From Six Kindergartens In In Tulip Cluster, Bengkulu City. The Frequency Of Milk Consumption And Other Information Were Investigated Using The Questionnaire. Analysis Of The Adequacy Of Milk Consumption Based On The Criteria Of The American Academy Of Pediatrics (Aap) And The American Dietetic Association Which Recommend Two Servings (2 Cups Or 573 MI) For Children 2–8 Years. Anthropometric Measurements; Weight For Age Z-Scores (Waz), Height For Age Z-Scores (Haz), Weight Fo Height Z-Score (Whz) And Bmi For Age Z-Scores (Baz Were Generated Based On Who References. Data Was Analyzed Using Spss Version 29 Statistical Software. The Association Was Assessed Using Multiple Linear Regression.

#### Findings / Results

The Children In The Study Who Met The Criteria For Milk Consumption Based On The Aap Were 24 (16.4%), And The Remaining 122 (83.6%) Did Not Meet It. The Number Of Dairy Portions The Child Ate Was Also Found To Be Significant Determinants Of Body Weight ( $B = 2,275$ ,  $P < 0.001$ ), Height ( $B = 0,021$ ,  $P < 0.001$ ), And Bmi ( $B = 0,021$ ,  $P < 0.001$ ). Twenty-Five Children (17.1%) Who Didn'T Meet The Adequacy Of Milk Consumption Were Classified As Underweight (Waz), While Only One Was In The Adequate Group. There Were 18 Children (12.3%) With Inadequate Daily Milk Consumption And 6 Children (4.1%) In The Adequate Group Who Were Classified As Stunting (Haz). The Number Of Wasting Children (Whz) Was 15 (10.2%), And None Of Them Were In The Group Of Children With Adequate Milk Consumption.

#### Discussion / Conclusion

Consuming Two Servings Of Dairy Per Day Was Linked To A Reduced Risk Of Stunting, Underweight, And Wasting. Further Research Is Necessary To Enhance Our Comprehension Of The Role Of Dairy Products And To Develop Strategies For Enhancing The Nutritional Well-Being Of Chidrens.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-107

### SEVERE VITAMIN D DEFICIENCY PRESENTING AS HYPOCALCAEMIC SEIZURES IN AN INFANT: A CASE OF NUTRITIONAL RICKETS

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#### Introduction

Vitamin D Deficiency Is A Significant Health Concern For Infants, Especially In Regions With Limited Sunlight And Dietary Restrictions. It Affects Calcium Homeostasis And Bone Health, And Severe Deficiency Can Lead To Rickets And Hypercalcaemic Seizures.

#### Materials / Methods

A 7-Month-Old Boy Presented To A Tertiary Care Hospital Following His Third Episode Of Generalized Tonic-Clonic Convulsions With Fever. The Initial Two Episodes Occurred Previous Day And Were Managed As Simple Febrile Convulsions.

The Child Was Exclusively Breastfed Until 6 Months, With Complementary Feeds Introduced Thereafter, Including Mashed Rice, Vegetables, And Fruits Without Animal-Derived Proteins Or Fats.

The Child Spent Limited Time Outside And Received Minimal Sun Exposure Due To Residing In An Area With Less Sunlight For The Last Four Months. Maternal Sun Exposure Was Also Restricted Due To Cultural Practice Of Covering The Body.

#### Findings / Results

He Had Frontal Bossing, A Wide Anterior Fontanelle, And Wide Wrist Joints, Features Suggesting Rickets, Despite His Normal Growth. Laboratory Investigations Indicated Severe Hypocalcaemia (Serum Corrected Calcium Level Of 1.3 Mmol/L), Hypophosphatemia (0.96 Mmol/L), And Elevated Alkaline Phosphatase (590 U/L). Both The Child And Mother Had Critically Low Serum Vitamin D Levels (11 And 10 Ng/Dl, Respectively). A Wrist X-Ray Confirmed Changes Consistent With Rickets, Including Metaphyseal Widening, Cupping, And Fraying.

Due To Inadequate Response To Iv Midazolam, The Child Was Given An Iv Calcium Gluconate Bolus Followed By An Infusion, Which Completely Relieved The Convulsions. The Infusion Continued For Two Days, Along With Oral 1 Alpha-Calcitriol And Calcium Carbonate, Until Serum Calcium Levels Normalized. Upon Confirmation Of Vitamin D Deficiency, A Single Oral Dose Of Vitamin D (60,000 Iu) Was Administered, With Plans For Monthly Supplementation For Three Months Alongside Continued Calcitriol And Calcium Carbonate. Dietary Changes Were Implemented, And The Significance Of Sun Exposure Was Emphasized.

#### Discussion / Conclusion

This Case Emphasizes The Need To Recognize Vitamin D Deficiency As A Cause Of Hypocalcaemia Seizures In Vulnerable Populations. Nutritional Rickets Due To This Deficiency Can Arise From Inadequate Dietary Intake And Limited Sun Exposure. Early Diagnosis And Proper Supplementation Are Vital To Prevent Serious Complications And Ensure Healthy Growth And Development In Affected Infants.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-110

### INTEGRATING CLOUD STORAGE AND ARTIFICIAL INTELLIGENCE TO INCREASE COMPLIANCE TO MANUAL LOCAL CENTRAL CATHETER CARE GOVERNANCE PROGRAMME: A SINGLE CENTRE EXPERIENCE

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#### Introduction

Performance Monitoring In The Forms Of Audits Is A Crucial Component In Establishing Good Clinical Governance. With The Advancements Of Clinical Nutrition, Central Venous Access Is An Integral Part Of Nutritional Intervention To Allow Provisions With Parenteral Nutrition And Regular Electrolyte Corrections.

In Order To Educate The Public For Home Parenteral Nutrition, Good Clinical Governance Should Be Established Within The Healthcare Facility To Allow Credibility With Regards To Home Central Venous Access Care.

As The Majority Of Tertiary Centres In Malaysia Lacks An Electronic Medical Record System, Resorting To Manual Audits Are Labour Intensive To Conduct With A Poor Compliance Rate From The Supporting Staff.

This Is A Novel Method Of Data Collection To Improve Compliance With The Aid Of Secured Online Cloud Storage And Artificial Intelligence To Improve The Compliance Of Manual Audits.

#### Materials / Methods

A Case Report Form (Crf) Was Attached To Every Box Of Unopened Central Venous Catheter In The Ward. It Is Manually Filled In. A Snapshot Via A Phone Photo Is Adequate Where It Will Be Transmitted To A Secured Cloud Storage Via A Quick Response (Qr) Code. The Crf Also Doubles As An Official Manual Entry Within The Medical Records Documenting Details Of The Catheter Insertion. The Crf Is Then Calibrated With An Artificial Intelligence (Ai) System Converting The Information Into Date Recorded In An Excel Sheet.

Similarly The Utilization Of The Catheter (Charted In A Modified Input/Output Drugchart) And Its Removal Is Monitored In A Similar Fashion.

#### Findings / Results

The Audit Is Intended To Include All Patients Who Has A Central Venous Catheter In The Surgical Wards. Previous Attempts Utilizing A Manual Approach Had An Extremely Low Compliance Rate Of 12 Cases In A Year. However, This Method Yielded 33 Patients Information Entered Within 3 Months (A 275% Increase In Compliance).

#### Discussion / Conclusion

Attempting A Clinical Manual Audit Is An Arduous Task With Low Compliance Rates. This Is A Novel Method Suitable For The Tech Savvy Society We Now Live In To Improve Compliance With Regards To Clinical Manual Audit.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-111

### PARENTERAL NUTRITION IN SABAH: A REVIEW OF USAGE, INDICATIONS, COST-BENEFIT ANALYSIS OF HOSPITAL QUEEN ELIZABETH, SABAH

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<sup>1</sup>Upper GI Unit, Hospital Queen Elizabeth, Kota Kinabalu, Sabah

#### Introduction

Malnutrition In Patients Is A Major Concern Due To Its Significant Impact On Health Outcomes And Healthcare Costs. Adequate Nutritional Provision Significantly Improves The Overall Outcome Of Patient Care. However, Meeting The Nutritional Needs Of Patients Who Can'T Tolerate Enterally Can Be Challenging. Parenteral Nutrition (Pn), If Used Appropriately, Is Proven To Be Of Great Value To This Select Group Of Patients. This Audit Aimed To Evaluate The Nature Of Pn Referrals, The Clinical Indications For Its Use, And Its Duration Across Various Departments At Hospital Queen Elizabeth (Hqe) In Sabah. Additionally, The Audit Assessed The Cost-Effectiveness Of Total Parenteral Nutrition (Tpn) In The Hospital.

#### Materials / Methods

A Retrospective, Cross-Sectional Design Using Computerized Data From The Nutritional Therapy Team (NTT) Of All Referrals For Parenteral Nutrition, June 2022 – June 2024. Data On Referring Units, Indication For Referral And Tpn Use, Type Of Pn (Central Or Peripheral), Duration Of Usage, And Cost Of Provision Were Captured.

#### Findings / Results

Over The Period Of 2 Years, 452 Patients Were Initiated On Pn At Hqe. Referrals Primarily Came From General Surgery (47.5%), Upper Gastrointestinal Surgery (38.9%), Medical Department (15.5%), Hepatobiliary Surgery (7.5%), Colorectal Surgery (6%), And Urology Ward (1%). Of These, 100 (22.1%) Patients Received Pn For Less Than 5 Days, While 352 Received Pn For 5 Days Or More. The Most Common Indication For Tpn Was Intestinal Failure (65.4%), Followed By Nutritional Support For Prehabilitation (19.1%). The Average Cost Of Pn Provision Ranges From Rm130-Rm300/Bag.

#### Discussion / Conclusion

Discussion: Effective Patient Selection Is Crucial For Ensuring That Tpn Is Used Appropriately, And Thus Preventing Unnecessary Expenditure. Early Referral To The NTT Team Can Aid In Better Patient Selection. Implementing A Standardized Protocol For Tpn Usage And Initiation Could Enhance Patient Outcomes, Improve The Safety And Efficacy Of Tpn And Optimize The Use Of Healthcare Resources.

Conclusion: Parenteral Nutrition (Pn) Started Prematurely, Can Lead To Various Problems Such As Pn Associated Complications And Increase In Financial Burden. Criteria For Initiation Of Pn Has To Be Standardized And Involvement Of Specialists In The Decision Making Should Be Encouraged. Correct Indication And Optimal Duration Of Pn Ensures Good Outcome Of Overall Patient Care In Hospitals.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-112

### ENTERAL NUTRITIONAL SUPPORT IN HOSPITAL QUEEN ELIZABETH, SABAH: A DESCRIPTIVE STUDY

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#### Introduction

Nutrition Plays A Pivotal Role In The Recovery Of Pre And Post Operative Surgical Patients. However, This Awareness Has Been Neglected Over The Years. It Would Be The Responsibility Of Surgeons And Dietitians To Assess Nutritional Risk Of Patients And Intervene Accordingly. The Objective Of This Study Is To Identify The High-Risk Group Requiring Early Enteral Nutrition Intervention Based On Demographic Factors And Admission Diagnoses.

#### Materials / Methods

Single-Site, Cross Sectional Data Examined From Dietetic Records Of 200 Surgical Patients Admitted To General Surgical Ward Hospital Queen Elizabeth, Sabah From January 2023 To March 2023 Who Required Enteral Nutritional Support Was Retrospectively Analyzed. This Included Patient Age, Gender And Diagnosis Categorized Into Intestinal Failure, Malnourished And As Part Of Prehabilitation. Data On The Types Of Enteral Nutrition (En) Support Received, I.E. Full Nutrition Support Or Meal Supplementation Were Included. Age Groups Were Classified Into Ages <20, 20-40, 40-60 And >60 Years.

#### Findings / Results

Demographic Data Revealed That Age Group Of >60 Years Consisted Of The Majority Of Dietician Consultations 61% (122 Of 200). Gender Distribution Was Equal 54% Males (108 Out Of 200). Key Diagnoses Included 66% (124 Of 200) Were That Of Intestinal Failure Followed By 33% (66 Of 200) Of Malnourished Patients And 5% (10 Of 200) Of Prehabilitation Indications. As For The Type Of Enteral Nutrition Received, 32% (64 Of 200) Of Patients Received Full Nutrition Support Compared To The Majority 68% (136 Of 200) That Received Meal Supplementation.

#### Discussion / Conclusion

There Is A High Number Of Dietician Consultations For Initiating Enteral Nutrition For Admitted Surgical Patients. Indications Such As Intestinal Failure And >60 Years Of Age Put Them At A Higher Risk And Thus Require An Early Referral. We Would Like To Further Analyze Means Of Reducing The Overall Cost Of Nutrition Support And Workload Burden Of The Dietitians To Improve Overall Work Efficiency And Patient Outcomes.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-114

### THE EFFECTIVENESS OF PROBIOTICS OR SYNBIOTICS IN THE PREVENTION AND TREATMENT OF DIARRHEA AMONG ADULT CRITICALLY ILL PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROL TRIALS

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#### Introduction

Diarrhea is one of the most common complications among patients in the intensive care unit (ICU). Alongside common medical products for managing diarrhea, attention has been directed toward natural approaches such as the use of probiotics or synbiotics supplements. The purpose of this review is to evaluate the effectiveness of probiotics or synbiotics in the prevention and treatment of diarrhea, mortality, and length of ICU stay.

#### Materials / Methods

In adherence to the guidelines outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement, a systematic review and meta-analysis was conducted. Relevant articles were identified by searching PubMed, Springerlink, and ScienDirect databases. Quality assessment was done using Cochrane Collaboration's tool for randomized-controlled trials (ROB2).

#### Findings / Results

A total of 6,305 articles were identified of which 14 papers were included. Probiotics reduced the risk of diarrhea by 10%, however, the result was not statistically significant (RR: 0.90; 95% CI 0.77, 1.05; P = 0.16; I<sup>2</sup> = 29%; 13 studies). No statistical significance was found among studies regarding reducing the duration of diarrhea, with considerable heterogeneity (RR: -0.53; 95% CI -1.46, 0.41; P = 0.27; I<sup>2</sup> = 71%, 5 studies). Neither the length of ICU stays, nor the mortality rate was affected by the use of probiotics or synbiotics.

#### Discussion / Conclusion

Probiotics or synbiotics appear to slightly lower the incidence of diarrhea among ICU patients, with the effect seen as statistically significant only after conducting sensitivity and subgroup analysis. Further high-quality clinical trials are required to evaluate the potential of probiotics or synbiotics in the treatment of diarrhea among critically ill patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-115

### **NUTRITIONAL INTERVENTIONS IN IMMUNOTHERAPY FOR ADVANCED HEPATOCELLULAR CARCINOMA: A CASE OF IMPROVED OUTCOMES THROUGH MEDICAL NUTRITION THERAPY**

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<sup>1</sup>*Mandalay Hospital, Mandalay, Myanmar*

#### **Introduction**

Hepatocellular Carcinoma (Hcc) Is A Prevalent And Aggressive Liver Cancer Often Linked To Chronic Liver Disease. While Traditional Treatments Like Surgery, Radiation, And Chemotherapy Have Been Standard, Immunotherapy Has Emerged As A Promising Approach For Advanced Cases. This Therapy, Particularly Immune Checkpoint Inhibitors, Boosts The Immune System'S Ability To Target And Eliminate Cancer Cells. However, The Success Of Immunotherapy Can Be Significantly Impacted By The Patient'S Nutritional Status. Medical Nutrition Therapy (Mnt) Plays A Critical Role By Supporting Immune Function, Enhancing Treatment Efficacy, And Managing Side Effects. This Is Particularly Vital For Patients Experiencing Weight Loss, Malnutrition, Or Reduced Appetite.

#### **Materials / Methods**

A 44-Year-Old Woman Presented With Severe Right Hypochondrium And Back Pain, Coupled With A 5 Kg Weight Loss (Approximately 8%) Over One Month. She Was Diagnosed With Stage 4 Multinodular Hcc. Initially Weighing 58 Kg With A Bmi Of 25 Kg/M<sup>2</sup>, Her Weight Dropped To 56 Kg After The First Cycle Of Immunotherapy, Which Occurred Three Weeks Post-Diagnosis. Concurrently, Her Albumin Levels Declined From 4.18 G/Dl To 3.11 G/Dl. She Also Experienced A Loss Of Appetite, For Which She Was Prescribed Megestrol Acetate Oral Suspension, Indicating A Pre-Cachexia Stage Characterized By More Than 5% Weight Loss, Anorexia, And Metabolic Changes. An Individualized Nutrition Plan Was Devised, Recommending 25-30 Kcal/Kg/Day And 1-1.5 G/Kg/Day Of Protein, Along With 2 Liters Of Fluid Daily. As She Was On Opioids For Pain Management, Which Led To Constipation, The Plan Included Adequate Dietary Fiber And Fluids. She Was Also Prescribed One Serving Of An Immunomodulating Formula Containing 1 Gram Of Omega-3 Fatty Acids (Epa) Twice A Day And Encouraged To Eat Small, Frequent Meals, Including Three Egg Whites Daily.

#### **Findings / Results**

Within Two Weeks, Her Appetite Improved, And After Eight Weeks, Her Weight Increased To 61 Kg, With Albumin Levels Rising To 3.55 G/Dl.

#### **Discussion / Conclusion**

Tailored Nutritional Support, Including Adequate Enteral Feeding And Immunomodulating Formulas, Is Crucial In Cancer Care. This Approach Addresses Nutritional Deficits And Enhances Clinical Outcomes, Such As Normalizing Albumin Levels, Ultimately Improving The Effectiveness Of Cancer Treatment And The Quality Of Life For Patients Undergoing Immunotherapy.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-116

### THE INTERSECTION OF CULTURE AND CLINICAL NUTRITION: A CASE STUDY IN ESOPHAGEAL CANCER RECOVERY

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#### Introduction

Squamous Cell Carcinoma (Scc) Of The Esophagus Is An Aggressive Cancer Often Linked To Chronic Irritants Such As Smoking, Alcohol Use, Or Gastroesophageal Reflux Disease. Surgical Intervention, Particularly The Ivor-Lewis Esophagectomy, Is A Standard Treatment, But It Poses Significant Challenges In Postoperative Nutritional Management. Malnutrition Is A Common Concern Due To Preoperative Weight Loss And The Physical Changes Following Surgery, Which Often Impede Oral Intake. Effective Nutritional Management, Including Enteral Feeding, Is Crucial To Support Recovery, Prevent Further Weight Loss, And Improve Overall Patient Outcomes.

#### Materials / Methods

A 69-Year-Old Male Patient Presented With A Two-Month History Of Dysphagia And A 20% Weight Loss, Leading To A Diagnosis Of Scc In The Middle Third Of The Esophagus. He Underwent An Ivor-Lewis Esophagectomy And Was Transferred To The Icu For Postoperative Care. Post-Surgery, His Estimated Body Weight Was 52 Kg, With A Bmi Of 17.9 Kg/M<sup>2</sup>, Indicating Severe Malnutrition. His Albumin Level Was 2.4 G/Dl, And His Hemoglobin Was 8.8 G/Dl. Given His High Risk Of Refeeding Syndrome, He Was Started On Total Parenteral Nutrition (Tpn) At A Low Caloric Intake (5-10 Kcal/Kg/Day) For The First Three Days, Gradually Increasing According To Refeeding Guidelines. A Gastrostomy Tube Was Placed During Surgery, And Tube Feeding Began On The Fourth Postoperative Day. As His Tolerance For Enteral Feeding Improved, Tpn Was Gradually Reduced.

#### Findings / Results

During Hospitalization, His Nutritional Status Improved, With His Weight Increasing To 56 Kg, Albumin Rising To 3 G/Dl, And Hemoglobin Normalizing. However, At His One-Month Follow-Up, He Had Lost 2 Kg Because His Family, Adhering To Traditional Beliefs, Provided Only Rice Water, Chicken Soup, And Bird'S Nest Through The Gastrostomy Tube, Assuming These Foods Were Sufficient For His Recovery.

#### Discussion / Conclusion

This Case Highlights The Critical Need For Comprehensive Nutrition Education And Counseling In Postoperative Care, Particularly In Myanmar, Where Traditional Remedies Such As Rice Water, Chicken Soup, And Bird'S Nest Are Often Relied Upon. While Culturally Significant, These Foods Do Not Provide The Necessary Nutrients For Recovery, Especially In Severely Malnourished Patients. Healthcare Providers Must Educate Patients And Their Families On The Importance Of Following Medically Prescribed Nutrition Plans To Prevent Further Weight Loss, Ensure Adequate Recovery, And Optimize Outcomes For Patients Undergoing Treatment For Esophageal Cancer. Balancing Cultural Beliefs With Evidence-Based Nutrition Is Essential For Improving Care Quality And Recovery In Such Cases.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-117

### COMPARATIVE ANALYSIS OF BIOELECTRICAL IMPEDANCE AND CT-BASED BODY COMPOSITION CHANGES BEFORE AND AFTER OPEN VS. MINIMALLY INVASIVE PANCREATODUODENECTOMY

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#### Introduction

Although Studies Have Been Reported Comparing The Clinical Outcomes Of Open Pancreatoduodenectomy (Opd) And Minimally Invasive Pancreatoduodenectomy (Mipd), There Has Yet To Be Research On Comparing Nutritional Outcomes Between These Techniques. Therefore, In This Study, We Sought To Analyze The Nutritional Outcomes Of Patients According To The Surgical Method Used, Utilizing Both Computed Tomography (Ct) And Bioelectrical Impedance Analysis (Bia) For Comparison.

#### Materials / Methods

This Study Was Conducted From August 2022 To December 2023 With 208 Patients Who Underwent Pancreatoduodenectomy (Pd) At Severance Hospital In Seoul, South Korea. The Enrolled Patients Were Divided Into 2 Groups According To Surgical Methods (Opd Vs. Mipd) And The Variance Of Nutritional Parameters Measured By Bia And Ct Before And After Surgery Were Compared. The Nutritional Parameters Were Measured On The Day Before The Pd And The Post-Operative Day 6.

#### Findings / Results

One Hundred One (48.6%) Patients Were Allocated To The Opd Group, And The Other 107 (51.4%) Patients Were Allocated To The Mipd Group. Post-Operative Muscle-Related Indicators Measured By Bia Showed More Significant Decreases In Skeletal Muscle Mass (Smm) In The Opd Group Compared To The Mipd Group (Mean 0.975 Vs. 1.015,  $P < 0.001$ ). Muscle-Related Indicators Measured By Ct, Such As Total Muscle Area (Tma) And Skeletal Muscle Area (Sma), Increased Post-Surgery, And The Mipd Group Significantly Better-Preserved Muscle Mass Post-Operatively (Tma: 1.022 Vs. 1.048,  $P < 0.019$ ; Sma: 1.016 Vs. 1.050,  $P = 0.001$ ).

#### Discussion / Conclusion

Mipd Showed Less Muscle Loss In The Immediate Postoperative Phase Compared To Opd.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-118

### FOOD SAFETY KNOWLEDGE AMONG JORDANIANS: A NATIONAL STUDY

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#### **Introduction**

Foodborne Diseases Is A Worldwide Public Health Issue. This Study Aimed To Identify Food Safety Knowledge Among Consumers In Jordan Throughout The Different Steps Included In The Food Handling Process; Specifically, Purchasing, Storage, And Cooking.

#### **Materials / Methods**

This Was A Multistage National Representative Study Where A Large Number (N = 2500) Of Consumers In Jordan Were Approached Randomly Between May And October Of 2018. A Total Of 1612 Consumers (64.5% Response Rate) Volunteered To Participate In The Study By Answering A Self-Administered Questionnaire. Chi-Square Test Was Used To Calculate The Relationship Between The Claimed Safe Food Purchasing Knowledge And Risky Practices At A Significance Level Of ( $\alpha = 0.05$ ). Anova And T-Tests Were Used To Investigate If Score Differences In Food Safety Knowledge Were Affected By Different Socio-Demographic Parameters Such As Level Of Education, Working Status, Occupation And Monthly Income.

#### **Findings / Results**

Over Half Of Participants Reported Good Level Of Food Safety Knowledge. Food Safety Knowledge Scores Were Significantly Affected By Age ( $P < 0.001$ ), Marital Status ( $P < 0.001$ ), Level Of Education ( $P < 0.001$ ), Monthly Income ( $P < 0.001$ ) Site Of Residence ( $P < 0.001$ ), Working Status And Occupation ( $P < 0.001$ ). Overall, Consumers Reported Proper Food Safety Knowledge.

#### **Discussion / Conclusion**

This Report Provides Overall Understanding Regarding Knowledge Of Jordanians About Food Safety. Consumers Of Food Are Lacking Adequate Knowledge. Recommendations For Food Safety Authorities In Jordan Concerning Consumers Targeted Food Safety Programs And Constitutes A Baseline Against Which Future Food Safety Interventions Could Be Measured.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-119

### SALT INTAKE HABITS AND CLINICAL FACTORS MANIFESTING HIGH BLOOD PRESSURE PATIENTS: A NATIONAL STUDY

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<sup>1</sup>*Jordan University of Science and Technology*

#### Introduction

Evidence From Clinical Practice And Scientific Literature Proves The Close Relationship Between Salt Intake And High Blood Pressure (Bp). Recognized Medical And Health Associations Recommended Limited Daily Salt Intake Among High Blood Pressure Patients To Minimize The Risk Of Cardiovascular Diseases.

#### Materials / Methods

A Secondary Data Analysis Of The Step Wise Surveillance Survey (Steps), Which Is A National Disease Survey For Non-Communicable Diseases And The Risk Factors Causing Them Was Employed. The Survey Was Developed Through The Ministry Of Health Of Jordan, In Collaboration With The World Health Organization.

#### Findings / Results

There Was A Total Of 4184 Participants From All Regions Of Jordan, Including 38.6% Male And 61.4% Female Participants. The Mean Age Was 39.4 (Sd +13.8). High Bp Patients That Were Clinically Diagnosed Comprised 28.2% (N=1178). All Participants Reported Having Their Bp Measured By A Healthcare Worker And 65.4% Of High Bp Patients Reported Taking Medications For Bp And 45.8% Reported Taking Aspirin To Prevent Any Heart Disease Or Accident. Only 7.1% Of High Bp Patients Reported Seeing A Traditional Healer For Their High Bp. However, 11.5% Of High Bp Patients Reported Taking Herbal Medications For Bp. Among Bp Patients Who Visited A Doctor In The Past 12 Months, 51.8% Of Them Were Advised To Reduce Salt In Their Diet Compared To 11.1% Of Normal Bp Patients Who Visited A Doctor In The Past 12 Months.

Regarding Salt Intake Habits, The Comparison Of Those With High Bp To Those With Normal Bp For The Following Items Was: 28.6% And 30.7% For Often/Always Add Salt To Their Food, 74% And 81.3% For Often/Always Have Salty Sauce In The Household Cooking, 18.5% And 28% Often/Always Eat Proceed Food High In Salt, 99% And 98.7% Think That They Consume Too Much Or Far Too Much Salt, 9.3% And 12% Think It'S Important To Lower Salt In Their Diet, 63.4% And 47.6% Think That Salt Could Cause A Health Problem, 69.9% And 52.8% Control Eat Proceed Food To Limit Salt Intake, 23.3% And 20.2% Look At Salt Content On Food Labels, 16.2% And 14.1% Buy Low Salt Alternatives, 34.6% And 32.9% Use Spices As Alternative To Salt In Their Food, And 47.6% And 40% Avoid Food Prepared Outside Of Their Home To Control Salt.

#### Discussion / Conclusion

It'S Alarming That Figures Of Salt Intake Among High Bp Patients Are High And Relatively Close To Those With Normal Bp. Such Figures Can Increase The Risk Of Cardiovascular Diseases Among Those Patients And Increase The Burden On The Healthcare System To Control And Treat Those Probable Future Heart Disease And Stroke Cases.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-122

### PHYSIOLOGICAL CHANGES RELATED TO CANCER AND TREATMENT-RELATED SYMPTOMS AND THE IMPORTANCE OF OPTIMAL NUTRITION SUPPORT IN MANAGING ONCOLOGY PATIENT

HOO GAI YAN<sup>1</sup>

<sup>1</sup>BEACON HOSPITAL

#### Introduction

Mr Lys, A 65-Year-Old Chinese Man, Was Admitted Due To Abdominal Pain, Minimal Bowel Open 1/52, Reduced Oral Intake, And Nausea. Patient Was Diagnosed With Stage2 Gastric Cancer In December 2019, Underwent Laproscopic Total Gastrectomy. He Presented In August2023 In Hospital With Epigastric Pain And Weight Loss. During His Follow Up Biopsy Done Showed Cholangiocarcinoma. Due To His Gastric Outlet Obstruction, Nasojejun Tube Was Inserted Under Ogd For Feeding- Referred To Dietitian On 17/11/2023. Cycle 1 Chemotherapy And Immunotherapy Was Started On 30Thnovember2023. During His Follow Up For Chemotherapy, He Developed Chest Discomfort And Diagnosed With Coronary Vasospasm.

#### Materials / Methods

His Bmi Was 17.6Kg/M2 (Wt:49Kg; Ht:1.67M). Significant Weight Loss Of 7% In 3 Months. Sga Scored C.

His Electrolyte Level, Serum Albumin, And Total Protein Were Normal Where Slight Decrease In Hemoglobin Level At Baseline. Throughout The Feeding, His Biochemical Data Showed Stabilize (Na, K, Po4, Mg). Tumour Markers- Ca 125, Ca 19.9 Were Elevated. Patient Was Initially On Liquid Diet And Solid Food Which Provides Energy ~1000Kcal, ~40G Protein. Referral For Nasojejun Feeding Initiated.

#### Findings / Results

Inadequate Oral Intake Related To Physiological Causes Increasing Nutrient Needs Due To Prolonged Catabolic Illness And Decreased Ability To Consume Sufficient Energy As Evidenced By Diet History And Unintentional Weight Loss Of 7%.

#### Discussion / Conclusion

Energy Prescription Of 1400Kcal, 75G Protein. Nasojejun Pump Feeding Initiated At 20MI/Hr Continuously For 12 Hours Followed By 40MI/Hr, 60MI/Hr And 80MI/Hr With Using Elemental Formula. Feeding Started From 972Kcal @20Kcal/Kgbw, 43.2G Protein Advanced To 1368Kcal, 60.8G Protein. Pt Was Also Supplemented With 1 Pair Parentrovite. Pump Feeding Advanced And Maintained At 1460Kcal, 70.8G Protein Upon Discharge And Follow Up Biweekly Basis. However, Pt Was Incompliance To The Feeding Schedule Which Resulted In Further Weight Loss. Close Monitoring Of Patients At Refeeding Syndrome Is Crucial And Nutrition Support For Oncology Patient Was Equally Important To Support Pt Throughout The Cancer Treatment.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-123

### APPETITE ASSESSMENT IN KIDNEY PATIENTS IN A TERTIARY CARE CENTER

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#### Introduction

Malnutrition Is An Independent Predictor Of Malnutrition. Nutritional Assessment Usually Includes Anthropometry, Biochemical Parameters And Scoring Like Subjective Global Assessment, Dialysis Malnutrition Scoring, Malnutrition Inflammation Score.

Aim: To Assess The Appetite Of Post-Transplant Recipients And Patients On Hemodialysis.

#### Materials / Methods

Incidental Hemodialysis Patients (Group A) And Post-Transplant Recipients (Group B) Attending Clinic Were Assessed. Adult Patients More Than 18 Years Of Age, Patients On Thrice A Week Hemodialysis For More Than 3 Months, Patients Who Have Undergone Renal Transplant More Than 3 Months, Without Any Hospitalizations For More Than 1 Month Were Included. Patients With Active Malignancies, Infections And Pregnancies Were Excluded. Appetite Assessment Was Performed With Simplified Nutritional Appetite Questionnaire (Snaq) For Anorexia, Which Is A Validated Nutritional Screening Tool. Every Patient Was Asked To Fill Out The Questionnaire. Scoring Was Noted. Based On Few Community Studies A Snaq Score Of 14 And Below Was Thought To Be Prognostic Of Malnutrition.

#### Findings / Results

Group A Consisted 52 Patients. There Were 23 Males With A Mean Age 56 And 29 Females With A Mean Age Of 55 Years. Group B Consisted Of 16 Males And 6 Females With Mean Age Of 41 Years. The Mean Snaq Score In-Group A Was Noted To Be 15 And That Of Group B Was Noted To Be 18.

#### Discussion / Conclusion

Appetite Assessment Is A Simple But Important Tool To Identify The Risk Of Malnutrition. Our Patient Were Well-Nourished Indication Good Dialysis And Nutritional Management In Hemodialysis Patients And Effect Of Nutrition Due To A Normal Kidney After Transplantation. The Assessment Further Elucidates That Transplantation Is The Best Option For Kidney Disease.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-124

### MEDICAL NUTRITION THERAPY IN STEVEN-JOHNSON SYNDROME/TOXIC EPIDERMAL NECROLYSIS (SJS/TEN) PATIENT WITH SEVERE MALNUTRITION: A CASE REPORT

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#### Introduction

Steven-Johnson Syndrome (Sjs) And Toxic Epidermal Necrolysis (Ten) Are A Medical Emergency Which Is Characterized By Severe Hypersensitivity Reactions In Skin And Mucosal. The Extensive Skin Loss Characteristic Of Ten May Negatively Affects Nutrition Intake Due To Oral Mucosa Involvement. Medical Nutrition Therapy Plays An Important Role To Improve The Wound Healing, Immune Function, And Nutritional Status, Thereby, Reduce Hospital Length Of Stay. Poor Nutritional Status And Inadequate Nutritional Support May Delay The Process Of Wound Healing, Leading To Complications, Thus Increasing The Morbidity And Mortality Rate.

#### Materials / Methods

We Present A Case Report Of A 37 Years Old Woman Who Was Admitted To The High Care Unit With Generalized Painful Skin Lesions Along With Oral Mucosa Involvement. The Diagnosis, Medical Treatment And Skin Procedures Were Done At The Hospital By Dermatologist. The Patient Was In Severe Malnutrition State (Body Mass Index 15.6 Kg/M<sup>2</sup>), Hypoalbuminemia (2.8 G/Dl), And Low Calories Intake Due To Oral Mucositis (<500 Kcal/Day For 3 Days). The Nasogastric Tube Could Not Be Inserted Because There Were Several Lesions In The Nasal Mucosa, Then Oral Nutrition Was Given In Small Volume In The Form Of High-Protein Polymeric Liquid Foods, Combined With Parenteral Nutrition (700 Kcal/Day, 45 G/Day Protein). Micronutrient Supplementations Were Also Given In The Form Of Multivitamin (Vitamin B1, B2, B3, B5, B6, B12, C), Vitamin D3, And Zinc.

#### Findings / Results

On The Third Day Of Hospitalization, There Was Improvement In Oral Mucositis, Then The Patient Was Given A Combination Of High-Protein Soft And Liquid Foods, Along With Oral Albumin Supplementation. Nutritional Intake Increased By The End Of The 1<sup>st</sup> Week (1500 Kcal/Day, 75 G/Day Protein), So Parenteral Nutrition Was Discontinued. The Patient Was Discharged On The Tenth Day, With Improvement Of Wound Healing, Increased In Albumin Levels (3.4 G/Dl), And Nutritional Intake (1700 Kcal/Day, 85 G/Day Protein). There Was No Weight Loss During Hospitalization.

#### Discussion / Conclusion

Medical Nutrition Therapy Should Be Considered In Patient With Sjs/Ten Due To Increased Metabolic Needs And Inability To Meet These Needs Orally. Adequate Nutritional Support Can Improve Clinical Outcomes, Thus Reduce The Morbidity And Mortality Rate.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-125

### SUCCESSFUL NUTRITIONAL THERAPY IN SUPERIOR MESENTERIC SYNDROME WITH CONCURRENT HIRSCHPRUNG DISEASE

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#### Introduction

Superior Mesenteric Artery (Sma) Syndrome Is A Rare Occurrence. It Is Due To The Compression Of The 3Rd Part Of Duodenum By The Superior Mesenteric Artery, Causing Duodenal Outlet Obstruction. Thus, It Will Manifest The Symptoms Of Intestinal Obstruction Such As Persistent Vomiting, Epigastric Discomfort As Well As Anorexia. If The Symptoms Persist And Are Left Unattended, It May Cause Further Electrolyte Imbalance And Worse, Malnutrition. This Condition Can Be Exacerbated By The Significant Weight Loss In Malnutrition

#### Materials / Methods

We Report A 28 Years-Old Lady, Who Presented To Us With Worsening Abdominal Distension, Associated With Vomiting And Minimal Bowel Open. The Symptoms Were Progressively Worsening For 6 Months As She Obtained A Significant Weight Loss. Initial Blood Investigations Were Unremarkable. Plain Abdominal Radiograph Showed Dilated Stomach And Small Bowel. Small Bowel Follow-Through Showed Contrast That Hold Up In D3. She Was Managed Non – Operatively

#### Findings / Results

Total Peripheral Nutrition (Tpn) Was Implemented Alternate With Enteral Nutrition. Tpn Was Adjusted Accordingly Based On Her Tolerance To Enteral Feeding As Well As Her Blood Parameters. Refeeding Syndrome Was Cautiously Prevented By Blood Monitoring. Weekly Weight And Bmi Were Obtained And Blood Investigations Were Monitored Closely. Her Condition Was Improved. Desired Bmi, Subsequently Achieved. Her Symptoms Gradually Subsided Following Her Weight Gain. Daily Nutritional Support And Physiotherapy, Combined, Facilitated Her In Achieving Targeted Bmi And Reversed Her Sma Syndrome.

#### Discussion / Conclusion

The Diagnosis Of Sma Syndrome Is Based On The Clinical Presentation Alongside Radiological Imaging That Helps To Interpret The Presence Of Its Signs. Initial Management Of Sma Syndrome Will Always Be Non-Surgical Intervention. Managing Acute Setting To Prevent Electrolyte Imbalance And Dehydration Is Crucial. Subsequently, In Consideration Of Nutritional Support Which May Improve The Symptom, Either Enteral Or Parenteral, As Well As Both.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-126

### DISTRIBUTION AND DETERMINANTS OF OBESITY AND ITS CORRELATION WITH WAIST CIRCUMFERENCE AND METABOLIC MARKERS AMONG OBESE FEMALE EMPLOYEES AT ADAM MALIK HOSPITAL, MEDAN, INDONESIA

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#### Introduction

This Study Aimed To Provide An Overview Of Sociodemographic And Other Factors Among Obese Female Employees And To Correlate Visceral Adipose Tissue With Waist Circumference And Metabolic Markers.

#### Materials / Methods

This Cross-Sectional Study Was Conducted At Adam Malik Hospital, Targeting 150 Eligible Obese Female Employees Aged 24–63 Years With Body Mass Index (Bmi)  $\geq 25$  Kg/M<sup>2</sup> According To The Asia-Pacific Classification. Sociodemographic Data Was Collected Through A Structured Questionnaire. Waist Circumference And Metabolic Markers Including Blood Pressure, Fasting Blood Glucose And Cholesterol Levels Were Measured Using Standard Procedures. Visceral Adipose Tissue Was Assessed Using Bioelectrical Impedance Analysis (Seca 514). Ethical Approval Was Obtained From The Institutional Review Board.

#### Findings / Results

In All, 150 Female Obese Individuals, Median Age Was 40 Years (Iqr 35–47). Sociodemographic Analysis, 126 (84%) Were Married, 111 (74%) History Of Pregnancy, 109 (72.7%) History Of Chilbirth, 108 (72%) History Of Breastfeeding. The Median Number Of Children Was 2 (Iqr 1–3). A Monthly Income Exceeding Rp 3,500,000 (\$322) (84%, N = 126). The Predominant Occupation Was Nursing/Midwifery (52.7%, N = 79). The Median Of Bmi Was 30.2 Kg/M<sup>2</sup> (Iqr 27.6–34.9), Waist Circumference 95 Cm (Iqr 89–103), Systolic Blood Pressure 120 MmHg (Iqr 110–130), Diastolic Blood Pressure 80 MmHg (Iqr 70–90), Fasting Glucose 99.5 Mg/Dl (Iqr 91–111), Cholesterol Was 200 Mg/Dl (Iqr 166–225) And Visceral Adipose Tissue (Vat) 2.7 (Iqr 2.2–3.3). Spearman'S Rank Correlation Analysis Between Visceral Adipose Tissue (Vat) And Systolic Blood Pressure (P = 0.293, P < 0.05), Diastolic Blood Pressure (P = 0.337, P < 0.05), Waist Circumference (P = 0.843, P < 0.05), Fasting Glucose (P = 0.263, P < 0.05) And Cholesterol Levels (P = 0.183, P < 0.05).

#### Discussion / Conclusion

Obesity Was Greater On Among Middle-Aged, Married Including Those With Children And High Incomes. Significant Correlations Were Found Between Visceral Adipose Tissue (Vat) And Metabolic Markers With A Strong Correlation With Waist Circumference (Wc), Indicating An Increased Risk Of Metabolic Disorders. These Findings Emphasize The Necessity To Address Obesity-Related Metabolic Risks In This Population.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-127

### STRESS AND CHOLESTEROL: EXPLORING THEIR HIDDEN LINK ON MINDFUL EATING IN TEACHERS

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#### Introduction

High Stress Levels Among Teachers Can Lead To Poor Health Outcomes, Including Issues With Sleep And Metabolic Health. Exploring Mindful Eating As An Intervention Could Provide Valuable Insights Into Improving These Health Indicators In Stressed Educators, Especially Among Those With Weight Problems. The Aim Of This Study Is To Investigate The Association Between Mindful Eating With Anthropometry, Stress, Sleep Quality, Fasting Blood Sugar And Lipid Profile Among Teachers In Kota Bharu, Kelantan.

#### Materials / Methods

Utilizing A Cross-Sectional Survey Design, Data Were Collected From 15 Secondary Schools In Kota Bharu, Involving 348 Teachers (Bmi > 23 Kg/M2) Using Simple Random Sampling. A Set Of Validated Questionnaires Including Sociodemographic Data, Malay-Mindful Eating Questionnaire (M-Meq), Perceived Stress Scale (Pss-10) And Pittsburgh Sleep Quality Index (Psqi) Were Used. The Anthropometry Measurement (Weight, Height, Waist And Hip Circumference, Body Fat Percentage), And Blood Sample (Fasting Blood Sugar And Lipid Profile) Were Also Taken.

#### Findings / Results

Mindful Eating (Me) Score Was Inversely Associated With Perceived Stress ( $R = -0.273$ ,  $P < 0.001$ ), Sleep Quality ( $R = -0.109$ ,  $P = 0.043$ ) And Bmi ( $R = -0.136$ ,  $P = 0.011$ ) But Positively Associated With Total Cholesterol In Blood ( $R = 0.122$ ,  $P = 0.024$ ), Ldl-C ( $R = 0.109$ ,  $P = 0.045$ ) And Hdl-C ( $R = 0.113$ ,  $P = 0.037$ ). Further Analysis Of Multiple Linear Regression Revealed That A Single Point Increase In Perceived Stress Resulted In A 0.238 Decrease In Me Scores ( $B = -0.238$ ;  $Se = 0.0021$ ,  $P < 0.001$ ), While A Single Point Increase In Hdl-C Resulted In A 0.175 Increase In Me Scores ( $B = 0.134$ ;  $Se = 0.046$ ,  $P = 0.037$ ).

#### Discussion / Conclusion

The Findings Suggest That Greater Hdl-C Is Connected With Better Me Because Individuals With High Hdl-C Might Be More Health-Conscious Overall. Meanwhile, Higher Perceived Stress Is Linked To Poorer Me Because Stress Can Disrupt Regular Eating Patterns And Able To Trigger Emotional Eating Or Binge Eating. Further Research, Specifically Intervention Study Is Needed To Explore The Mechanisms Underlying This Relationship And To Assess Potential Strategies For Mitigating Its Impact.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-128

### HOME PN IN DISTRICT: A CASE SERIES

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#### Introduction

Home Parenteral Nutrition (Hpn) Represents A Critical, Life-Sustaining Intervention For Patients Unable To Meet Their Nutritional Needs Via Enteral Routes. By Facilitating The Continuous Intravenous Administration Of Essential Nutrients In A Home Setting, Hpn Significantly Enhances Patients' Quality Of Life And Reduces The Need For Prolonged Hospitalizations. This Case Series Aims To Elucidate Hpn Experience Of Four Patients With Complex Medical Conditions Managed At Hospital Enche' Besar Hajjah Khalsom (Hebhk), Kluang, A District Hospital In Malaysia.

#### Materials / Methods

Medical Records Hebhk, Kluang

#### Findings / Results

This Retrospective Case Series Reviews The Medical Records Of Four Patients Who Were Initiated On Hpn At Hebhk. Data Were Collected On Patient Demographics, Underlying Conditions, Indications For Parenteral Nutrition (Pn), Duration Of Therapy, Complications, And Overall Outcomes. The Primary Indication For Hpn In All Four Cases Was Type 3 Intestinal Failure, Necessitating Life-Long Parenteral Nutrition (Pn). The Prescribed Pn Regimens Provided 30–35 Kcal/Kg Of Ideal Body Weight (Ibw) Per Day, With An Adequate Protein Intake Of 1.2–1.5 G/Kg Ibw/Day. Notably, There Were No Reported Complications Among The Patients Receiving Hpn. However, Three Patients Succumbed To Their Underlying Diseases, While The Remaining Patient Continues To Receive Hpn Without Any Adverse Events. The Duration Of Hpn Among These Patients Varied, Ranging From 27 To 387 Days, With An Average Of 145.5 Days At The Time Of Documentation.

#### Discussion / Conclusion

This Case Series Underscores The Feasibility And Importance Of Providing Hpn Services In A District Hospital Setting, Especially For Patients With Intestinal Failure. The Successful Management Of These Cases, Supported By An Established Nutrition Therapy Team, Highlights The Potential For Hpn To Be Effectively Administered Even Outside Of Tertiary Care Centers.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-129

### MANAGEMENT OF HIGHER INTERDIALYTIC WEIGHT GAIN AND PRE-DIALYSIS BLOOD PRESSURE BY DIET EDUCATION AMONG HEMODIALYSIS PATIENTS

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<sup>1</sup>RSPAD Gatot Soebroto

#### Introduction

Interdialytic Weight Gain (Idwg) Should Be Maintained Between Dialysis Treatment To Minimize Unnecessary Accumulation Of Harmful Toxins, Electrolytes And Fluid. Higher Idwg May Cause Higher Pre-Dialytic Blood Pressure (Bp), Electrolyte Imbalance, Edema. High Idwg Also Stimulate Greater Intradialytic Reductions In Bp (Hypotension Risk) As A Result Of Higher Ultrafiltrate On Rates And Increasing Mortality Risk. However, Idwg And Bp Can Be Managed By Dietary And Fluid Restriction Between Dialysis Treatment. The Aim Of This Review Was To Discuss The Effectivity Of Diet Education On Interdialytic Weight Gain And Blood Pressure Management Among Hemodialysis (Hd) Patients Based On Recent Studies.

#### Materials / Methods

The Preparation Of Review Was Obtained From The Analysis And Synthesis Of Various Journals. Three Recent Studies Were Found On Pubmed Medline And Google Scholar With The Main Search Terms Are "Interdialytic Weight Gain", "Blood Pressure", "Diet Education".

#### Findings / Results

Diet Educational Intervention On Hemodialysis Patients Concern On Salt And Fluid Restriction. Those Intervention Conducted By Registered Dietitian And/Or Nephrology Nurse At The Bedside Patient During Hemodialysis Session. Result Of Three Reviewed-Studies Showed The Decreasing Of Idwg Or Idwg Ratio After Diet Education Within 2-Month Periods And 48-Month Periods Of Intervention. Diet Education That Focused On Salt And Fluid Restriction Also Leads On Decreasing Of Pre-Dialytic Blood Pressure But Not All Of The Studies Showed Significantly Difference After Intervention. It Contributed On Decreasing Of Dosage Of Antihypertensive Drugs Among Patients That Experienced Improvement Of Idwg Ratio. Based On Nutritional Parameter, There Was Significantly Difference Between Creatinine Amount After 2-Month Intervention ( $P \leq 0.01$ ). Meanwhile, Estimated Salt And Water Intake Showed Significantly Decreasing From  $13.3 \pm 2.7$  To  $11.8 \pm 2.4$  G/Day And  $2528 \pm 455$  To  $2332 \pm 410$  MI/Day, Respectively ( $P < 0.05$ ) After 48-Month Nutritional Counseling.

#### Discussion / Conclusion

Diet Educational Intervention May Contribute On Decreasing Of Idwg, Idwg Ratio, Pre-Dialysis Blood Pressure Among Hemodialysis Patients. Diet Education Session During Hemodialysis Treatment Also Improve Nutritional Status And Nutrition Intake Especially Salt And Water Intake.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-131

### CLINICAL EXPERIENCES WITH CHYME REINFUSION THERAPY IN ADULTS AND NEONATES

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*<sup>1</sup>Ipanema Trust and Insides Co.*

#### Introduction

Nutritional Management Of Intestinal Failure (If) Secondary To High-Output Double Enterostomies (Des) Or Enterocutaneous Fistulas (Ecf) Is Complex. Des And/Or Short Bowel Syndrome (Sbs) Secondary To Intestinal Resection, Congenital Intestinal Abnormalities Or Necrotising Entero-Colitis (Nec) In Neonatal Intensive Care Unit (Nicu) Patients Are Associated With Morbidity And Mortality. Enteral Nutrition (En) Is First Choice Therapy But Less Efficacious When The Gut Is Compromised. Hence Parenteral Nutrition (Pn) Is Required. Chyme Reinfusion Therapy (Crt) Is Recommended For High Output Stomas/Fistulas. International Experience Using Innovative New Systems In 500+ Patients Is Encouraging.

#### Materials / Methods

The First Cohorts Of Patients Utilising Crt With The Insides® And Insides Neo® Systems Have Been Analysed For Outcomes, Pn Dependence, Nutrition And Liver Status, Ease Of Use, Length Of Hospitalisation And Surgical Rehabilitation.

#### Findings / Results

Adults: Outcomes Of 17 Patients (10 Des, 7 Ecf) Revealed That 13/17 Were Pn-Dependent. After Commencing Crt, 10/13 Patients Weaned Completely From Pn In A Median 12.5 Days Or Reduced In The Remaining 2/10. 75% Of Crt Patients Maintained Their Serum Albumin, Creatinine And Liver Function Tests Within Reference Range, With Increased Nutritional Risk Index Of 13.6%. Median Crt Use Was 111 Days. 12/17 Patients Have Successfully Undergone Closure Surgery And Were Discharged Home In A Median 36 Days (1-85).

Neonates: Of Ten Patients (4/10 With Nec) In Nicu, 7/10 Were Pn-Dependent At Commencement Of Crt. 4/7 Weaned Early From Pn Onto Expressed Breast Milk And Supplementary En, Achieving Enteral Autonomy And Successful Reversal Of Enterostomies. Median Crt Use Of 37.5 Days (Range 12-84) Resulted In A Weight Gain Rate Increase From 68.8G ± 37.4 To 197G ± 25.0 G/Week (P=0.024). Nicu Nurses And The Multidisciplinary Nutrition Support Team Reported Time And Potential Cost Savings From Improved Workflows.

#### Discussion / Conclusion

Chyme Reinfusion Therapy Facilitates Weaning From Parenteral Nutrition And An Early Return To Enteral Or Oral Feeding, Maximising The Gut'S Natural Functions With Distal Bowel Rehabilitation. Clinical Outcomes, Growth, Weight Gain And Nutritional Status Improve With The New Crt Systems That Provide Time And Cost-Efficient Alternatives To Manual Protocols Or The More Expensive Pn For Nutritional Management Of Intestinal Failure Patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-132

### EFFECT OF HIGH-CALORIE, HIGH PROTEIN SUPPLEMENTATION ON CLINICAL OUTCOMES IN INTENSIVE CARE UNIT (ICU) PATIENTS: A PILOT STUDY.

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<sup>2</sup>Clinical Nutrition Excellence Academy.

#### Introduction

The Role Of High-Caloric, High-Protein (Hchp) Supplementation In The Management Of Critically Ill Patients.

#### Materials / Methods

This Prospective Study Examined 30 Icu Patients Who Received Hchp Supplementation. Nutritional Status Was Evaluated Using The Modified Sga And Anthropometric Measurements. Biochemical Parameters, Mortality Rates, Length Of Icu Stay, And Overall Health Outcomes Were Assessed.

#### Findings / Results

The Modified Sga Score Showed 46.7% Were Well-Nourished, 40% Moderately Malnourished, 13.3% Severely Malnourished. The Mean Bmi  $24.58 \pm 5.09$ , Muac Was  $29.6 \pm 4.8$ cm, And Calf Circumference Was  $37.5 \pm 5.4$ cm, Around 53% Of The Patients Had Normal Bmi, 10% Underweight And 36.66% Overweight. 73% Of Muac Measurements Are In Normal Range, 10% Slightly Above, And 7% Below. Similarly, 69% Of Patients Had Normal Calf Circumference. At The Time Of Admission, Nearly One-Third Of The Patients Exhibited Normal Hand Grip Strength In Their Dominant Hand With The Mean Value Of  $10.32 \pm 5.4$  And For Non-Dominant Hand  $12.10 \pm 3.5$ . Further, Correlation Analysis Revealed A Positive Association Between The Total Number Of Feeds And The Dominant Hand Grip Strength ( $P < 0.01$ ). 56.7% Of The Study Population Experienced Nosocomial Infections, Uti, Pneumonia, Bacterial Infections, And Hyperkalemia. With The Exception Of Total Protein And Serum Albumin, All Other Biochemical Parameters Showed Statistically Significant Improvement After Supplementation ( $P < 0.05$ ), Indicating A Favorable Impact Of The Nutritional Intervention. The Significant Improvement In Calorie From 28 % To 86% And Protein From 27% To 82% Of The Intake Respectively, Calorie And Protein Prescribed Suggests An Increasing Adherence To Nutritional Support Over Time.

#### Discussion / Conclusion

The Study Demonstrates That Hchp Supplementation In Icu Patients Can Lead To Improved Handgrip Strength And Overall Recovery. The Nutritional Status At The Time Of Discharge Was 86.7 % Of The Patients. The Mean Value Of The Sofa Score Found To Be  $5 \pm 1.7$ , Which Suggests A Positive Prognosis For The Patients. Similarly, The Apache Score Was Found To Be  $12 \pm 4$ , Which Corresponds To 85% Of Survival.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-133

### TO EVALUATE MALNUTRITIONAL STATUS USING GLIM NUTRITIONAL ASSESSMENT & DYSPHAGIA IN REHABILITATION CENTRE

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*<sup>1</sup>Apollo Hospitals hyderabad*

#### Introduction

Aim: To Evaluate Malnutritional Status Using Glim Nutritional Assessment & Dysphagia In Rehabilitation Centre.

#### Materials / Methods

Methodology: A Total No. Of 30 Samples Were Taken From A Rehabilitation Center, Apollo Hospital, The Duration Period Was 2 Months For The Project. The Data Was Collected By Using, Swallow Dysphagia Questionnaire (Sdq) To Grade The Degree Of Dysphagia And It Was Re-Assessed For 4 Weeks. Handgrip Strength Analysis By Squegg( A Hand Squeeze Device), And The Weight Changes Were Followed By 4 Weeks. Glim Was Used To Grade The Severity Of Malnutrition. Incidence Of Bedsores Has Also Been Evaluated During The Study Period. The Swallow Therapy Tests For Dysphagia By Swallow Therapist With Different Texture Of Foods. The Statistical Analysis Used For The Results Are Descriptive Test, T-Test, Correlation Test.

#### Findings / Results

The Total N=30 Samples, According To The Glim Criteria, 70% Are Severely Malnourished, 26.7% Are Moderately Malnourished. As Per The Sdq Grading, 56.7% Had Dysphagia, The Handgrip Strength Show As,75% Had Weak Handgrip Strength And 25% Are Having Normal Handgrip Strength. In Terms Of Weight Change With Calorie Intake, There Is A Positive Correlation But Not Significant. The Correlation Of Albumin Is Positively Correlated, Whereas Pre-Albumin Is Negatively Correlated With Protein-Intake. A Total Of 12 Patients Had Bed Sores In Which 8 Are Having Grade-1 Bed Sores, 3 Are Having Grade 2 And 1 Is Having Grade 5.

#### Discussion / Conclusion

The Data Shows That Only 56% Of Population Reached Their Nutrition Goals, In spite Of Close Nutrition Monitoring, And As Per Glim Criteria 70% Are Severely Malnourished, As 56% Had Dysphagia This Study Emphasizes Need For Clear Focus On Planning And Monitoring Of Food Intake To Take Care Of The Nutritional Status Of Patients In Rehab.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-134

### ENHANCED RECOVERY AFTER SURGERY PROTOCOL IN CRITICAL CARE: CONSEQUENCES OF NON-IMPLEMENTATION

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#### Introduction

Although The Enhanced Recovery After Surgery (Eras) Protocols Have Been Adopted In Malaysia, The Implementation Is Not Widespread In Critical Care Settings.

#### Materials / Methods

None As This Is A Case Report

#### Findings / Results

54-Year-Old Male Presenting With Abdominal Pain And Loss Of Consciousness Was Admitted With An Elevated Lactate Levels Indicated Metabolic Acidosis. Ct Scan Revealed Ileoileal Intussusception, Diffused Urinary Bladder, Fatty Liver And Right Renal Cortical Cyst. Emergency Exploratory Laparoscopy Was Performed, And No Signs Of Intussusception Was Noted Apart From Inflammation Of Pancreas And Abnormalities In The Lung. Patient Was Then Diagnosed With Alcoholic Pancreatitis Due To Chronic Alcoholism And Admitted To The Intensive Care Unit (Icu) And Was Sedated With Opioid Analgesics. Nasogastric Tube Was In Situ Since Admission, But Patient Was Kept Nil By Mouth Till Postoperative Day (Pod) 2. On Pod 2, Patient Self-Extubated And Was Kept On Nasal Prong. However, The Patient Desaturated And Reintubated On Pod 3. Throughout Icu Admission For 13 Days, Patient Developed Grade 2 Pressure Sore.

Once Extubated, He Was Discharged From Icu Care To Surgical Ward. There, He Was Planned For Discharge Despite Being Malnourished And Not Being Able To Mobilize. Patient Was Severely Malnourished With A Bmi Of 14.3Kg/M2 With An Oral Intake Of Less <500 Kcal And 10G Protein And Ct Brain Revealed Cerebral Atrophy. Patient Was Then Transferred To Another Facility By Family. Patient Was Still Suffering Post Operative Delirium And Had 2 More Falls During The Second Admission. He Had Low Folate Levels Masked By B12 Deficiency. The Patient Was Then Prescribed A High Protein, High Calorie Diet, Oral Nutrition Support And B Vitamins Supplementation. He Was Then Discharged To A Rehabilitation Facility For Another 2 Weeks As He Was Adl-Dependent And Needed Wound Care Management.

#### Discussion / Conclusion

Early Mobilisation In Mechanically Ventilated Patients With In Bed Activities, A Multimodal Analgesia To Minimise Use Of Opioids And Early Feeding Could Have Improved This Patient'S Outcomes. There Is A Need To Personalise Eras Protocols In Critical Care Settings.



## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-135

### NUTRITIONAL STATUS AND NUTRIENT ADEQUACY IN ECMO PATIENTS

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#### Introduction

Patients Receiving Extracorporeal Membrane Oxygenation (Ecmo) Inherit Substantial Disease Associated With Metabolic, Endocrinology And Immunological Modifications. Despite Of Its Beneficial Effect, The Energy Requirements Remains Difficult To Achieve In Patient Receiving Ecmo Support. Most Of The Data Showed That Patients On Ecmo Was Underfed And Achieved Only 60% Of Their Targeted Calories And Protein Requirement. Thus, Patients Receiving Ecmo Are At Increased Risk For Malnutrition And Require Targeted Individual Medical Nutrition Therapy (Mnt).

#### Materials / Methods

A Monocentric Retrospective Study Of 25 Patients Who Were On Ecmo Were Observed And Followed Up Until Hospital Stay. Daily Energy And Protein Delivery Were Compared With Estimated Targets And Reasons For Feed Interruptions Were Collected.

#### Findings / Results

We Analyzed 25 Patients; The Median Duration Of Total Icu Stay Was 13.0 (Min- 8.9.–Max-17.2) Days. While On V-V Ecmo 44% Patients Were On Ecmo Throughout The Hospital Stay And Remaining 56% Were Out Of Ecmo Within 20Days. The Mean Values Of Nutric Score Was 4.5 For Well Nourished And 5.4 For Mild Moderately Malnourished, Sofa Score Was 7.25, Apache Score Was 28.5 And 21.76 Respectively. The Mean Value Were Similar By Grade Of Sga, Thus The Above Score Were Non-Significant.

The Calorie Prescribed Was Between 1500 – 2500 Kcal, 80% Of The Patients Were Consuming On An Average Of Above 1000Kcal And Remaining 20% Were Below 1000Kcal, The Protein Prescribed Was 60 -120G .56% Of The Patients Were Consuming Above 60G And 44% Were Consuming Below 60G Of Protein For The 1st 2 Weeks. The Calorie Deficit For Overall Hospital Stay Was 38.5 % And Protein Deficit Was 38.2 %

The Most Common Reasons For Interrupted Feeding Were Aspiration (56 %), Weaning Trials (32 %), Medical Procedures (24 %) And Others(Gi Intolerance) (4%).

#### Discussion / Conclusion

Conclusion: A Huge Calories And Protein Deficiency Was Observed Mainly Due To Gastro Intestinal Intolerance And Feed Interruptions. Due To Small Sample Size The Correlation Between The Nutrient Intake And Outcome Couldn'T Be Established. Methods To Improve Nutrient Intake May Give Better Outcomes In Ecmo Patients.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-136

### SPOTLIGHT ON MALNUTRITION: EXPLORING PREVALENCE AND RISK FACTORS IN A PUBLIC HOSPITAL IN MALAYSIA USING GLOBAL LEADERSHIP INITIATIVE ON MALNUTRITION (GLIM) CRITERIA

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#### Introduction

Malnutrition Is A Critical Issue In Patients, Contributing To Longer Hospital Stays, Higher Readmission Rates, Increased Mortality, And Elevated Healthcare Costs. This Study Aims To Assess Malnutrition Prevalence Using Glim Criteria And Explore Its Associations With Socio-Demographic Factors, Health Status, Bmi, Dietary Adequacy, And Functional Capacity.

#### Materials / Methods

A Cross-Sectional Study Of 239 Adult Inpatients In Medical Wards Of A Public Hospital In Selangor, Malaysia, Was Conducted. Socio-Demographic Data And Health Status Were Collected, Bmi Was Calculated Using Omron Hbf-375, Dietary Adequacy Was Assessed Via 24-Hour Dietary Recall, And Handgrip Strength Was Measured For Functional Status.

#### Findings / Results

Most Participants Were Aged 18-59, Male, Malay, With Lower Education, Unemployed, Had Underlying Diseases With Comorbidities, Were Overweight Or Obese, Had Inadequate Energy And Protein Intake, And Exhibited Lower Handgrip Strength. Approximately 25.5% Of Adult Inpatients Were Malnourished, With 4.6% Moderately And 20.9% Severely Malnourished, While 74.5% Were Well-Nourished. Malnutrition Was Significantly Associated With A Higher Number Of Comorbidities, Lower Education, Unemployment, Lower Income, Underlying Disease, Lower Bmi, Inadequate Energy And Protein Intake, And Reduced Handgrip Strength ( $P < 0.05$ ).

#### Discussion / Conclusion

In Conclusion, Malnutrition Is Prevalent In Hospitals, Highlighting The Importance Of Early Screening And Intervention To Mitigate Its Adverse Effects During And After Hospitalization.

## RESTORING & REDEFINING CLINICAL NUTRITION

ID: PENSA-137

### CASE REPORT : THE EFFECT OF HIGH PROTEIN WITH OLIVE EXTRACT (HYDROXYTYROSOL) ADMINISTRATION ON LENGTH OF HOSPITALIZATION AND BODY WEIGHT OF COVID-19 PATIENTS

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#### Introduction

We Will Conduct A Case Study In A Hospital In Indonesia To See The Effects Of High-Protein Nutritional Intervention With Olive Fruit Extract On Covid Patients Compared To Those Who Were Not Given Specific Nutritional Intervention, Which Is Expected To Accelerate The Recovery Phase With High Protein And Olive Fruit Extract As An Anti-Inflammatory And Antioxidant Benefit, Thereby Reducing Inflammatory Reactions In Covid Patients.

#### Materials / Methods

Case Report

In The Covid Condition, We Conducted A Case Study In 4 Covid Referral Hospitals In Indonesia, We Wanted To See That The Addition Of High Protein Nutrition With Olive Fruit Extract In The Treatment Of Covid Patients Had The Effect Of Accelerating The Recovery Phase Compared To Not Being Given Nutritional Intervention On Top Of The Necessary Therapeutic Drugs.

#### Findings / Results

Summary

- A. Total Patients  
The Total Number Of Patients From 4 Hospitals Is 28 Patients With 18 Male Patients And 10 Female Patients.
- B. B. Average Age  
The Average Age Of The 28 Patients Is 52 Years
- C. Average Weight Gain  
The Average Weight Gain Of The 28 Patients Is 4 Kg
- D. Average Length Of Hospitalization  
The Average Length Of Hospitalization Of The 28 Patients Is 8 Days 22 Hours
- E. Conclusion  
All Patients Did Not Experience Weight Loss During The Hospitalization Process With High Protein With Olive Extract (Enterasol Platinum) Supplementation.

#### Discussion / Conclusion

The Conclusion Is That Compared To Other Initial Studies Length Of Stay In Hospital For Covid Patients In China , The Recovery Phase With Nutritional Intervention Is Faster For Patients To Leave The Hospital Healthy.