



Diet Link

OFFICIAL NEWSLETTER OF THE MALAYSIAN DIETITIANS' ASSOCIATION

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FROM THE

EDITORIAL

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BSc (Dietetic),
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DESK

This issue starts with an update of three local studies that are published this year. It is delightful to see that more dietitians are performing high-quality research and generated important data for the local population. The first study is a randomized controlled trial that investigated the effectiveness of preoperative whey protein-infused carbohydrate loading and postoperative early oral feeding on postoperative outcomes among Gynaecologic Cancer patients. The second study reported the validity of the use of ultrasound for assessing quadriceps muscle in hemodialysis patients. The third study investigated the relationship between nutrition status and frailty syndrome among community-dwelling elderly. Two delicious dietitian-designed recipes for one dish, Cajun Chicken, served with Pico De Gallo, are presented by Bonnie Ng, Dietitian & Founder of Wetibeti. Our featured dietitian, Siti Amirah Shaheera, is the founder of Studio Dietitian, a dietitian group that is dedicated to sharing nutrition knowledge in the social media to the general public. The research methodology corner shares a few popular methods that are used to control for confounding in observational studies. We are also privileged to publish the sharing from the Dietetic and Foodservice Departments from 11 hospitals in Sabah, the state that was the most badly hit in the second wave of COVID-19 in our country, about their experiences and challenges in providing food and dietetic service in their respective hospital. We thank Encik Rosli from Hospital Wanita dan Kanak-Kanak Sabah for gathering the pieces from all the hospitals. Finally, we have one student article that briefly reviews the health effect of Diet Soda. We continue to encourage more student to contribute their article to the Diet Link. Stay safe and enjoy the Diet Link!

EDITORIAL MEMBER

Chief Editor
Lee Zheng Yii

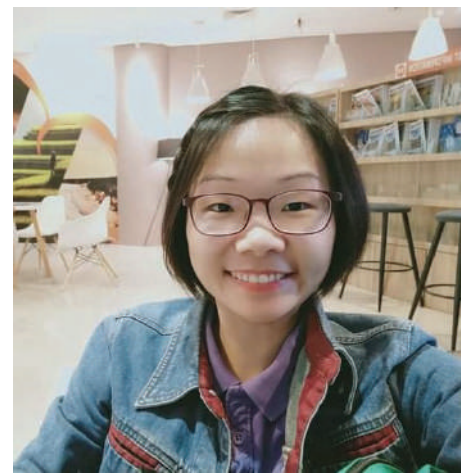
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Impact of Enhanced Recovery after Surgery with Preoperative/ Whey Protein-Infused Carbohydrate Loading and Postoperative Early Oral Feeding among Surgical Gynaecologic Cancer Patients: An Open-Labelled Randomized Controlled Trial

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Background: Enhanced Recovery After Surgery (ERAS) with preoperative sole carbohydrate (CHO) loading is widely proven in reducing the length of postoperative hospital stay (LPOHS) without increasing complications among gastrointestinal and gynecologic cancer (GC) patients. However, most ERAS protocol studies were focused on postoperative clinical outcomes such as LOS, complication, and the readmission rate. However, the role of the ERAS protocol in the changes of nutritional aspect (body composition) and functional status (handgrip strength) remains unclear. This randomised controlled trial aimed to determine the impact of ERAS with preoperative whey protein-infused CHO loading and postoperative early oral feeding on postoperative outcomes among GC patients.

Method: The trial recruited 62 subjects as intervention group (CHO-P), who received ERAS with preoperative whey protein-infused CHO loading and postoperative early oral feeding, and 56 subjects as the control group (CO), which were given conventional surgical care. Postoperative outcomes including surgical outcomes, postoperative complications, nutritional (body composition, dietary intake and biochemical profile) and functional status (handgrip strength) were studied. Body composition involved in this study were muscle mass, fat percentage, fat-free mass and fat mass, while biochemical profile assessed were full blood count, albumin and C-reactive protein. Body composition was measured via TANITA body composition analyser, nutritional status via PG-SGA, dietary intake via 24-hour diet recall, handgrip strength via Jamar Dynamometer. Pearson Chi-square, paired t-test, independent t-test and two-way mixed model ANOVA were used to analyse the data.

Result: The mean age for CHO-P was 49.5 ± 12.2 years, and CO was 51.2 ± 11.9 years. Percentage weight loss within 1 month were $-4.5 \pm 6.8\%$ and $-5.3 \pm 7.2\%$ for CHO-P and CO, while PG-SGA scores were 6.7 ± 5.2 and 7.0 ± 5.5 , respectively. CHO-P showed significantly positive results in the trial, which included shorter LPOHS (78.13 ± 33.05 hours vs. 99.49 ± 22.54 hours, $p < 0.01$), less postoperative nausea and vomiting (17% vs 24%, $p < 0.01$), a lower readmission rate within one-month postoperative (6% vs. 16%, $p < 0.05$), lower weight loss (-0.3 ± 2.3 kg vs. -2.1 ± 2.3 kg, $p < 0.01$), lower C-reactive protein–albumin ratio (0.3 ± 1.2 vs. 1.1 ± 2.6 , $p < 0.05$), more preserved muscle mass (0.4 ± 1.7 kg vs. -0.7 ± 2.6 kg, $p < 0.01$), and better handgrip strength (0.6 ± 4.3 kg vs. -1.9 ± 4.7 kg, $p < 0.01$) as compared with CO. However, there were no significant differences in mid-upper arm circumference and serum albumin level upon discharge.

Conclusion: ERAS with preoperative whey protein-infused CHO loading and postoperative early oral feeding not only assured better surgical outcomes without increasing postoperative complications and readmission rate, but also achieved superior preservation of nutritional status and muscle strength, as well as suppression of postoperative acute phase inflammatory marker among GC patients. This intensive and individualised nutritional approach with a multidisciplinary involvement and collaboration is recommended to be integrated into routine perioperative nutritional intervention in management of surgical oncology to ensure better surgical, nutritional and functional outcomes after surgery.



To read this article in full: Yi HC, Ibrahim Z, Abu Zaid Z, et al. Impact of Enhanced Recovery after Surgery with Preoperative Whey Protein-Infused Carbohydrate Loading and Postoperative Early Oral Feeding among Surgical Gynecologic Cancer Patients: An Open-Labelled Randomized Controlled Trial. *Nutrients*. 2020;12(1):264. Published 2020 January 20. doi:10.3390/nu12010264



Validity of ultrasound imaging in measuring quadriceps muscle thickness and cross-sectional area in hemodialysis patients

Background: Muscle wasting associates with protein-energy wasting (PEW) which is prevalent in hemodialysis (HD) patients and is a challenge for assessment. Indirect methods, namely anthropometry measures and bio-impedance analysis, are non-invasive approaches but rely on predictive equations to estimate skeletal muscle mass and limited by the presence of edema, which is common in the dialysis population. Gold standard methods such as computed tomography (CT) and magnetic resonance imaging are expensive, require trained personnel and pose radiation risk specifically in chronic kidney disease patients. The ultrasound (US) imaging is a potential surrogate measure for muscle wasting using quadriceps muscle thickness (QMT) and cross-sectional area (CSA) assessment.

Research question/Objective: US imaging method has been applied and validated in other diseases but not for HD patients. We were interested in checking the validity of US to measure QMT and CSA in HD patients against the gold standard CT scan.

Methodology: Twenty-six HD patients from outpatient dialysis clinics were recruited based on convenience sampling and eligibility criteria. These patients were undergoing standard HD treatment (4-hourly X 3 times weekly) for > 3 months. Both thighs were landmarked for the iliospinale® and anterior patella® as per the International Society for the Advancement of Kinanthropometry protocol and length between the two landmarks was determined at mid-point and 2/3 length. Both US and CT scans were acquired on the exact same locations. All scans were performed 4 to 5 hours post-dialysis on the CT table with the US scan completed before the CT scan.

a. Ultrasound imaging

QMT of the rectus femoris (RF) and vastus intermedius (VI) muscles was measured by a trained researcher as per standardized protocol for both legs using a portable US equipment (GE Logiq e Digital Portable Color Doppler, GE Healthcare, Wauwatosa, US). CSA of the rectus femoris muscle (RFCSA) was measured at the mid-thigh landmark.

b. CT imaging

Non-contrasted CT scan was performed using a multi-slice CT scanner (Symbia Intevo 16, Siemens Healthcare GmbH, Erlangen, Germany). Only one image slice (10mm) was taken per measured site to minimise radiation exposure. The CT scans and measurement of QMT and CSA on the CT images were performed by a radiologist.

c. Statistical analysis

The agreement between the US measures and CT readings was the primary outcome of this study. The interclass correlation coefficient (ICC) was calculated to determine the validity of US against CT scan measurements. Bland-Altman plot tested the difference between methods compared to the overall average.

Main findings: The QMT and CSA for the RF and VI muscles indicated high ICC of 0.92-0.97 between methods obtained for all muscle sites (all $p < 0.001$). Bland-Altman analysis indicated no bias in an agreement between both methods. In conclusion, the US imaging offers a valid and quick bedside assessment approach to assess muscle wasting in HD patients.

Implications/Recommendation for practising dietitians

based on our study findings: This study validated US as an alternative approach indirectly assessing muscle wasting in HD patients. Given that US is a reliable, highly portable and cost-effective method, dietitians should incorporate this method as part of their nutritional status assessment for rapid detection of muscle wasting, a major characteristic of PEW.

Recommendation for future research: Future research by our team is investigating cut-offs as per US measures to indicate PEW risk, which will assist health practitioners in early identification of PEW patients for intervention.

To read this article in full: Sahathevan S, Khor BH, Yeong CH, et al. Validity of Ultrasound Imaging in Measuring Quadriceps Muscle Thickness and Cross-Sectional Area in Patients Receiving Maintenance Hemodialysis [published online ahead of print, 2020 May 8]. *JPEN J Parenter Enteral Nutr.* 2020;10.1002/jpen.1867. doi:10.1002/jpen.1867

Malnutrition as Key Predictor of Physical Frailty among Malaysian Older Adults

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Background: Frailty is one of the geriatric syndromes which housed the unique features of symptoms and conditions experienced by aged individuals. The definition of frailty remains contested, but it can be considered as a clinical state of increase individual's vulnerability, resulting from age-associated decline in physiological reserve and function to develop negative health-related event such as disability, hospitalization, institutionalization and death when exposed to endogenous and exogenous stressors.

Objective: The main objective of this study is to determine the prevalence and factors that predict frailty syndrome among community dwelling elderly.

Methodology: This is a cross-sectional study conducted among elderly who resided in Projek Perumahan Rakyat (PPR) Kuala Lumpur. A cluster sampling method was applied, whereby all blocks from each randomly chosen flats ($n=10$) were included in the study. The inclusion criteria of the study population were community-dwelling elderly aged 60 and above who resides in PPR Kuala Lumpur and able to ambulate without personal assistance. The exclusion criteria include the following: presence of severe sensory deficits for locomotion, communication, drawing and writing; present of Alzheimer disease; unstable medical conditions and presence of terminal illness.

Frailty status was assessed using the Fried Phenotype criteria of frailty which classified the index into three states of robust, pre-frail and frail. The phenotype composites assessed in the frailty assessment were shrinking (loss of body weight), weakness (low handgrip strength), exhaustion, slowness (slow gait speed) and low physical activity. The covariates that were hypothesized to be the predictors of frailty were the present of chronic disease, depression, functional disability, malnutrition, poor anthropometric measurements and abnormal biochemical parameters. The short-form mini nutritional assessment (MNA-SF) was employed to identify older adults who were at risk of malnutrition. Body compositions were assessed using the OMRON Body Fat Analyser (HBF-375 model). The relative skeletal muscle mass index (SMI) is defined as the skeletal muscle mass (SMM, kg) divided by body height in meter squared (m^2).



Main Findings: Three hundred and one elderly were recruited in this study with a mean age of 67.1 ± 5.5 years ranged from 60 to 84 years old. The prevalence of frailty and pre-frail from the study population were 15.9%

and 72.8% respectively, which women appeared to be at high risk of frailty. Half of the respondents were found to be physically dependent (51.5%) and 15% of the them were cognitively declined. Almost one third of the respondents were at risk of malnutrition (29.6%) and 3.3% were malnourished. More than half of the respondents were reported to be overweight (39.2%) and obese (25.9%) with mean BMI of $27.5 \pm 5.5 \text{ kg/m}^2$. Results show that those who are physically frail are found to be of higher mean age, have lower household income and SMI and are at risk of malnutrition. Similarly, those who are at risk of malnutrition have a higher number of chronic diseases, lower body weight and BMI, a lower circumference of arm and calf as well as lower skeletal muscle mass and frailty.

Further explorations of the components in the criteria of frailty and MNA have revealed that both exhibit considerable overlapped constituents. We showed that there was a strong relationship between each of the MNA-SF items and frailty status. Both frailty and malnutrition are significantly related to each other, particularly for the phenotype of shrinking and exhaustion in the frailty criteria with reduced food intake, presence of weight loss and immobility in the components of malnutrition.

Recommendation to practising dietitians in the community setting: Results suggested that frailty and malnutrition shared considerable overlap, which emphasised the interrelated but discrete concepts. The adaptation of MNA as an indirect tool to screen for frailty syndrome is promising. A careful approach should be undertaken primarily in addressing those with lower and higher BMI extreme values. Due to the progressive loss of muscle mass following ageing, a detailed evaluation of nutrition-focused physical finding is important to assess the risk of malnutrition and frailty among older adults. Emphasis should be drawn on unintentional weight loss, the decline in muscle mass, body fat and abdominal circumference. This study suggests that those who were identified as at risk of malnutrition should be as well screened for frailty syndrome. Early detection of frailty syndrome is imperative as the intermediary state of pre-frail is a window of opportunity in reversing the frailty progression, which makes this state alluring for preventive and restorative strategies.

To read this article in full: Norazman CW, Adznam SN, Jamaluddin R. Malnutrition as Key Predictor of Physical Frailty among Malaysian Older Adults. *Nutrients*. 2020;12(6):1713. Published 2020 June 8. doi:10.3390/nu12061713

Recipe 1: Cajun Spiced Chicken Breast

No. of serving: 5

Ingredients

Salt	¾ teaspoon
Garlic	1 clove
Smoked paprika	1 teaspoon
Black pepper	½ teaspoon
Cayenne Pepper	½ teaspoon

Ingredients

Dried Oregano	¾ teaspoon
Dried Thyme	½ teaspoon
Cooking oil	3 teaspoon
Chicken fillet	450g (Boneless Skinless Chicken Breast)

Preparation steps:

1. Stir together salt, garlic, paprika, black pepper, cayenne pepper, oregano thyme in a bowl.
2. Brush the chicken with oil and marinate it with the mixed spices (step 1) for 30 minutes.
3. Preheat oven to 220 degree Celsius.
4. Line up the chicken fillet on the oven tray and bake for 13 - 15 minutes.
5. Let the chicken breasts rest for 3 minutes before cutting them into thin slices.
6. Serve and enjoy the Tex-Mex flavor chicken with the Pico De Gallo over the warm rice.

Recipe 2: Pico De Gallo

No. of serving: 5

Total time (min):

- Preparation time (min): 5 min
- Cooking time (min): 15 min

Ingredients

Garlic clove	1 clove
Onion	30g
Jalapeno	10g
Cilantro (leaves only)	10g

Ingredients

Lime juice	10g
Tomato	200g
Black Pepper	2.3g (½ teaspoon)
Sea salt	3g (½ teaspoon)

Choose the ripe tomatoes and remove the seeds before chopping.

Preparation steps:

1. Finely chop the garlic and set aside.
2. Dice up the onion, jalapeno, tomato and transfer into a bowl.
3. Mix lime juice, salt and pepper in a bowl.
4. Combine the reserved garlic, diced veggies (from step 2) and seasoning and stir it.

Total time (min):

- Preparation time (min): 5 min
- Cooking time (min): 15 min

Unique Selling Point

Juicy tender oven-baked chicken loaded with the flavors of spices. This Cajun-spiced chicken is so flexible that you can incorporate some chilli flakes in step 1 to add a little bit of heat to the chicken. Now you can enjoy your Tex-Mex chicken with rice and sides like pico de gallo (below) and veggies.

Nutrient Analysis (Per serving)

Calorie (kcal)	152
Protein (g)	14.7
Fat (g)	9.9
Carbohydrate (g)	1.2
Dietary fiber (g)	0.5
Sodium (mg)	416

Reference for Nutrient Analysis: Energy & Nutrient Composition of Food, Singapore

Unique Selling Point

This salsa is super easy to prepare without turning on your stove. It is made with fresh ingredients and best to go serve with your Mexican dishes.

Cajun Spiced Chicken Breast

served with Pico De Gallo

Nutrient Analysis (Per serving)

Calorie (kcal)	14
Protein (g)	0.8
Fat (g)	0.1
Carbohydrate (g)	2.4
Dietary fiber (g)	0.5
Sodium (mg)	243

Reference for Nutrient Analysis: Energy & Nutrient Composition of Food, Singapore

**Bonnie Ng**

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Dietitian & Founder of Wetibeti
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SHARING FROM A SOCIAL MEDIA DIETITIAN



Apakah cabaran menjadi seorang Dietitian Sosial Media? Antara cabaran yang biasa dihadapi adalah menangani individu atau kumpulan yang menyebarkan fahaman yang salah dan berbahaya kepada orang ramai. Cabaran ini menjadikan saya seorang yang lebih rasional terhadap sesuatu isu dan mendorong saya untuk lebih banyak membaca serta mencari maklumat terbaharu untuk memastikan perkongsian saya selari dengan dapatan kajian dan garis panduan terkini.

Apa tugas seorang Dietitian Sosial Media? Dietitian Sosial Media adalah gelaran yang diberikan kerana keaktifan berkongsi tips dan fakta pemakanan di sosial media. Tiada tugas rasmi yang dinyatakan, tiada bayaran yang diberikan, tetapi usaha yang kecil dan konsisten ini adalah kerana dorongan minat yang mendalam untuk berkongsi ilmu pemakanan kepada orang awam dengan berlandaskan etika dan garis panduan seorang Dietitian.

Apa yang mendorong anda untuk bermula? Semenjak menceburkan diri dalam bidang usahawan ketika di tahun ketiga pengajian, saya mula terdedah kepada ilmu 'marketing', ilmu memahami tingkah laku manusia, 'content writing', 'personal branding' dan lain-lain. Dengan ilmu ini, saya mula sedar betapa mudahnya rakyat Malaysia dimanipulasi dengan janji manis penjual produk yang tidak beretika. Iya. Itulah kuasa 'marketing'. Dengan kesedaran dan sedikit ilmu usahawan ini, saya berusaha menjadi seorang 'Influencer' atau mungkin juga dilihat sebagai 'Dietitian Sosial Media' dengan tujuan utama untuk berkongsi fakta pemakanan kepada masyarakat Malaysia bagi membasmi mitos dan salah faham yang disebarkan oleh sesetengah pihak.

Bagaimana anda bermula? Saya bermula dengan DietFit Malaysia (Program penurunan berat badan bersama Jurulatih dan Dietitian). Sepanjang menjadi Dietitian Online, saya berpeluang untuk memahami pemikiran dan isu yang dihadapi oleh komuniti kita dengan lebih dekat kerana berhubungan dengan peserta secara hari-hari. Tanggungjawab saya sebagai seorang Ketua Dietitian Online, mendorong saya untuk berfikir secara kreatif bagaimana mahu membina modul dan program yang efektif untuk membantu rakyat Malaysia menurunkan berat badan secara sihat dan 'sustainable'. Soalan-soalan lazim yang diterima sepanjang menjadi Dietitian Online, saya jadikan panduan dan topik untuk berkongsi kepada komuniti di sosial media. Dari situ, penulisan saya mula mendapat perhatian dan perkongsian yang banyak.

Apa pencapaian anda sebagai Dietitian Sosial Media? Bermula pada tahun 2018, semenjak mendapat perhatian di sosial media, saya mula mendapat rezeki jemputan ceramah pemakanan dari NGO, persatuan penduduk, pemilik gym, badan kerajaan malahan beberapa kali mendapat jemputan di Siaran TV Astro Mingguan Wanita, Malaysia Hari Ini serta berpeluang menjadi Duta kecil EcoBrown di siaran GoFit Astro dan *Nutrition Month Malaysia*.

Apa rahsia mudah dikenali dan memastikan audien tertarik dengan perkongsian dan penulisan kita? Pastikan topik yang dikongsikan adalah topik 'evergreen'. Kedua, pastikan solusi yang diberikan dekat serta praktikal pada komuniti kita. Ketiga, pastikan bahasa dilaras menggunakan bahasa yang mudah difahami oleh pelbagai lapisan masyarakat.

Ke manakah hala tuju Dietitian Sosial Media? Semakin saya aktif di dalam sosial media, semakin saya sedar betapa ramai masyarakat kita tidak sedar kewujudan Dietitian. Malahan ramai antara mereka tidak tahu, kepada siapa mereka mahu rujuk untuk isu pemakanan yang mereka alami. Saya serta Dietitian Sosial Media lain seperti Khairul Azuan, Lily Moha, Fizah Sobri dan lain-lain yang sedia aktif di sosial media tidak menang tangan untuk menyebarkan ilmu di sosial media. Kekangan ini mendorong saya dan rakan saya, Salsabila Aznan, graduan Dietetik UKM untuk menubuhkan Studio Dietitian My sebagai medium untuk berkongsi maklumat pemakanan serta membantu masyarakat mendapatkan perkhidmatan Dietitian secara mudah sama ada atas talian atau di rumah mereka sendiri. Yang paling utama, Studio Dietitian My juga merupakan platform untuk 'Freelance' Dietitian membina kerjaya, bersama-sama berkongsi ilmu di sosial media serta menyantuni pesakit secara atas talian. Studio Dietitian My terdiri dari lebih 20 individu lepasan graduan Dietetik di seluruh Malaysia; UPM, UKM, UITM, UKM, UIA, IMU dan USM. Sepanjang 4 bulan berdaftar secara rasmi, Alhamdulillah, kami sudah mempunyai lebih 60 puluh pesakit individu serta dijemput untuk ceramah di dalam dan luar negara hasil usaha bersama setiap ahli Studio Dietitian My

Apakah kata-kata untuk Dietitian yang ini berkongsi di sosial media? Mula dan teruskan. Tanpa Dietitian yang berani mengambil risiko untuk berkongsi di sosial media, masyarakat kita akan terus dan terus diperdaya dengan mitos dan penjual produk tidak beretika. Siapa tahu, mungkin dengan usaha bersama kita berkongsi di sosial media, sedikit sebanyak dapat membantu Negara kita menangani masalah Penyakit Tidak Berjangkit yang semakin meruncing saban tahun. Percayalah, setiap perkongsian kita sangat-sangat dinantikan oleh masyarakat kita. Kalau bukan kita, siapa lagi?

Penulis adalah Siti Amirah Shaheera Binti Shalihin yang merupakan graduan Dietetik dan pelajar Master di Universiti Putra Malaysia. Beliau lebih dikenali sebagai Dietitian Cik SAS dan sangat aktif berkongsi di laman Facebook Malaysia: Siti Amirah Shalihin. Beliau merupakan pengasas bersama Syarikat Studio Dietitian My dan mempunyai cita-cita yang besar untuk menjadikan bidang Dietetik dan pemakanan lebih dekat dengan komuniti dan pesakit dengan usaha sama Dietitian di seluruh Malaysia. Salah satu pegangan hidup beliau adalah, 'Teruslah menuntut ilmu walau dari apa dan siapa sekalipun, kerana antara tujuan hidup ini adalah berilmu untuk berbakti.'



Siti Amirah Shaheera Binti Shalihin
Studio Dietitian My



Methods used to control for the effect of (measured) **confounders** in observational studies

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In a randomized controlled trial (RCT), especially an RCT with large sample size, the problem of confounding is theoretically none (or very minimal) because the process of 'randomizing'

balances all the known and unknown characteristics between the intervention and control groups. Confounding are, therefore "eliminated" with the balanced group, allowing a researcher to measure the 'effect' of the only difference between the groups – the intervention.

However, in observational studies, confounding cannot be eliminated. A researcher can only minimize/control for confounding by anticipating and measuring the potential confounders for the study. Confounding can be controlled for before or after a study is done. But regardless how well a researcher anticipates, measure and control for confounding before or after the study, an observational study cannot run away from the problem of residual confounders – the unknown confounders that are not measured. Hence, causality (an effect) cannot be established from an observational study. Observational studies can only identify 'association' which will form the hypothesis to be tested in an RCT. Nevertheless, many time RCT cannot be conducted due to ethical reason. For example, it is unethical to randomize non-smokers to smoking and non-smoking group and follow them for the development of lung cancer. In such circumstances, observational studies are the highest possible level of study design that can be conducted and therefore it is important to design observational study that is as close to the 'truth' as possible, by minimizing and controlling for the problem of confounding.

Several methods can be used to control for confounding:

1) Restriction

A researcher can restrict his/her study sample to only those individuals who do not have a suspected or known confounding factor. For example, smokers can be excluded from a study that investigates the association of asbestos exposure and lung cancer. However, sample restriction might render the sample size of the study to be too small to give a meaningful result. It also reduces the generalizability of the study to a broader population who are also exposed to the variable of interest (in this example, asbestos exposure).

2) Stratification

Often a better approach is to include everyone in the study, for example, smokers and non-smokers, and then look at these groups separately in the analysis. A more robust conclusion can be made if every subgroups' results are in a similar direction. For example, the result that showed that asbestos increases the risk of lung cancer in both smokers and non-smokers is more robust than if asbestos only increases the risk of lung cancer in non-smokers.

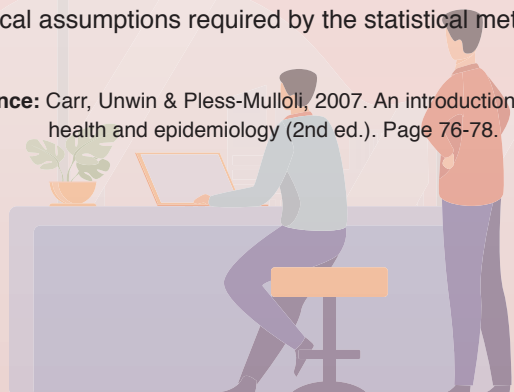
3) Matching

Another method of dealing with confounding is to look at subjects in matched pairs. In the asbestos–lung-cancer example, a researcher could form matched pairs between smokers who worked in the asbestos industry and smokers who did not work in the asbestos industry, and similarly with non-smokers. Other variables can be matched, as well. For example, a researcher might match pairs on the basis of age, sex, social class as well as smoking status. The disadvantage of this approach is that it can be challenging, time-consuming and therefore expensive. It can also present problems in finding enough people who can be matched.

4) Multivariate Statistical Analysis

There are statistical techniques such as multivariate analysis which allow for the estimation of an association between an exposure and a disease while controlling for several confounding factors simultaneously. For example, a multivariate logistic regression can be conducted if the dependent variable (DV) is dichotomous (such as in our example: the development of lung cancer), factors such as age, sex, smoking status, educational level etc can be adjusted/controlled. The conclusion will be more robust if asbestos is still associated with lung cancer development after adjusted for all the potential confounders. A multivariate linear regression can be conducted if our DV is continuous (such as body weight, exam score, oil price etc.). However, the data can only be analyzed if they fulfilled the statistical assumptions required by the statistical method.

Reference: Carr, Unwin & Pless-Mulloli, 2007. An introduction to public health and epidemiology (2nd ed.). Page 76-78.



COVID-19 SHARING FROM SABAH HOSPITALS

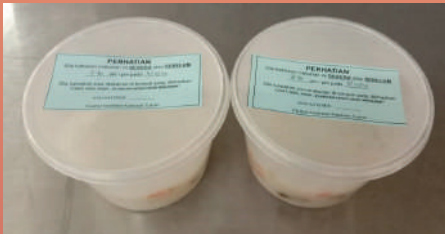
Hospital Tuaran

Nazirah Binti Zuman

Unit Dietetik dan Sajian Hospital Tuaran telah diberikan tugas untuk menyediakan makanan secara in-house untuk pesakit dan petugas Covid-19 di Pusat Kuarantin dan Rawatan Covid-19 Berisiko Rendah (PKRC)-INTAN Sabah mulai 7 Oktober 2020. Unit Dietetik dan Sajian pada ketika itu terdiri daripada 1 orang Pegawai Dietetik, 1 orang Penolong Pegawai Penyediaan Makanan dan 7 orang Pembantu Penyediaan Makanan.

Pembekalan makanan dilakukan oleh Unit Dietetik dan Sajian mulai 7-13 Oktober dengan Jumlah 28 hingga 100 pek sehari merangkumi pesakit dan petugas kesihatan dari Hospital Tuaran. Makanan yang telah disediakan oleh Unit Sajian seterusnya dihantar ke PKRC oleh pemandu Hospital Tuaran bermula dari sarapan pagi, makan tengah hari dan makan malam. Disebabkan oleh faktor kekurangan tenaga kerja dan bajet bahan mentah, permohonan bajet perolehan darurat telah dipohon melalui Pengarah Hospital ke Jabatan Kesihatan Negeri Sabah (JKNS) untuk menyediakan makanan secara outsource.

Selepas perolehan darurat diluluskan, makanan telah dibekalkan kepada PKRC merangkumi pesakit dan petugas dari Hospital Tuaran dan Hospital Wanita dan Kanak-kanak Likas menggunakan perkhidmatan outsource. Perkhidmatan ini telah dijalankan oleh pihak syarikat BTC Maju Holding Sdn Bhd mulai 17 Oktober 2020 merangkumi sarapan pagi, makan tengah hari, minum petang dan makan malam dengan purata jumlah 300-350 pek sehari. Pemantauan berterusan dilakukan oleh Pegawai Dietetik Hospital Tuaran bagi memastikan semua proses pembekalan makanan pesakit dan petugas berjalan lancar.



Setiap makanan dilabel dengan waktu sesuai makanan dimakan bagi memastikan keselamatan makanan



Makanan yang disediakan oleh pihak BTC Maju Holding Sdn Bhd



Kakitangan Unit Sajian bekerjasama menyediakan makanan untuk pesakit dan petugas Covid-19



COVID-19 SHARING FROM SABAH HOSPITALS

Hospital Mesra Bukit Padang

Geoallen George

Sepanjang pandemik COVID-19, Pegawai Dietetik terlibat sebagai pasukan MPHSS (Mental Health and Psychosocial Support) yang bertujuan membantu mengurangkan stress di kalangan penghuni pusat kuarantin di sekitar Kota Kinabalu. Antara aktiviti yang dilakukan adalah memberikan ceramah pemakanan interaktif secara online bersama peserta di pusat kuarantin (terhad kepada 15 orang dalam satu – satu masa). Selain daripada itu, video pendek mengenai pemakanan sihat juga diberikan kepada penghuni pusat kuarantin yang terlibat. Apa yang menarik adalah, pegawai dietetik juga terlibat dalam memberikan senaman seperti Zumba dan music therapy / group singing therapy kepada penghuni pusat kuarantin.

Selain itu, antara penglibatan Pegawai Dietetik adalah menjadi Ahli Jawatankuasa Covid-19 peringkat hospital yang bertanggungjawab dalam pematuhan standard operating procedures (SOP) Norma Baharu di kalangan anggota kantin. Pegawai Dietetik dilantik sebagai ahli jawatankuasa (AJK) pemantau hospital bagi memastikan anggota memakai personal protective equipments (PPE) semasa pandemik ini. Unit Dietetik dan Sajian juga turut terlibat dalam menyediakan makanan kepada petugas saringan Covid-19 yang telah bertanggungjawab membuat saringan ke atas pelawat yang datang ke Hospital Mesra Bukit Padang.



Program dibuat setiap minggu kepada penghuni pusat kuarantin (2 kali seminggu mengikut jadual)



Hospital Wanita dan Kanak-Kanak Sabah

Rosli bin Mohd Sali

Since the first Movement Control Order (MCO), which was effective on 18 March, then changed to Conditional MCO (CMCO) on 13 May, switched to Recovery MCO (RMCO) on 10 June and now return to the second phase of CMCO in the state of Sabah on 7 October this COVID-19 pandemic condition indeed impacted us as we are one of the COVID-19 hybrid hospitals in Sabah. As a dietitian, we have been advised to apply the appropriate Personal Protective Equipment (PPE) as recommended when attending to patients at PUI (Person Under Investigation) or SARI (Severe Acute Respiratory Infection) wards and doing medical nutrition therapy (MNT) consultation by phone if the patient is in a COVID ward. There were times that positive cases were reported among patients or healthcare workers in the ward, we were pounding whether we will be included as a close contact who need to undergo an RT-PCR swab test. Although the SOP compliance efforts were duly followed, there was an incident where two of our dietitians were instructed to take the swab tests, but thankfully the results were negative. A hard lessons has been learnt and has

given us more time to be better prepared when facing the current wave or known as "Post-State General Election Sabah" wave. We have received instructions from top management to reduce the risk of the pandemic among employees. As a result, we have successfully carried out the task in a split team where we were divided into two teams and will not meet with each other. Despite having to work by rotation, including weekends or public holidays, we will continue to support our frontliners because we are BACKLINERS!



Team A JDS HWKKS (Rosli, Nuri, Najib, Rubin, Awang, Alex, Velmik, Avvie, Ellner, Rauf, Juliana and Ben)



Team B JDS HWKKS (Mariani, Amirul, Deasnny, Randy, Daniel, Lorrída, Kalvie, Safika, Rajuhati, Edy, Aqilla and Dorra)

COVID-19 SHARING FROM SABAH HOSPITALS

Hospital Keningau

Goh Mei Sing

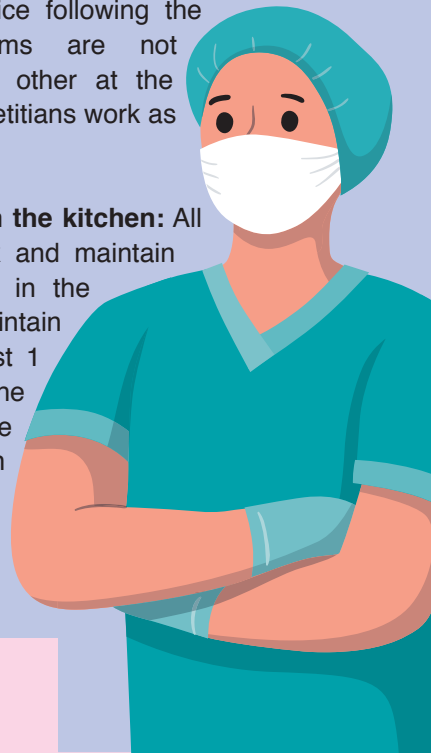
Clinical Dietetic services: Dietetic Clinic was closed for 2 months during movement control orders (MCO) from April to June. Individual phone counselling had been done for gestational diabetes mellitus (GDM) cases, and other patients' appointment had been postponed to July onwards. The clinic had been resumed after MCO, but it has closed again from October 22 until December during recovery MCO (RMCO). Phone group counselling and Zoom class for GDM had been started. All cases referred from Covid-19 ward and patient under investigation (PUI) ward would be seen by a dietitian via phone call.

Food Services: All Covid-19 patients (including confirmed and patient under investigation [PUI]) and frontliners staff in the hospital, nurses home and Pusat Kuarantin dan Rawatan Covid-19 Berisiko Rendah (PKRC) had been provided with food prepared by Dietetic and Food Services Unit. Food prepared in a disposable container.

Staffing Working Schedule: Working schedule had been rearranged to prevent lockdown of the kitchen if any one of the team has been diagnosed with Covid-19. Eleven Pembantu Penyediaan Makanan (PePM) has been split to 2

teams; both of the team has been rotated in working. Two Assistant Catering Officer has been rotated for work from home and work at the office following the PePM team. Both teams are not encouraged to meet each other at the working place or outside. Dietitians work as usual working hours.

Standard of Procedures in the kitchen: All staffs must wear the mask and maintain hand hygiene all the time in the kitchen. All staffs should maintain physical distance to at least 1 meter away, including in the pantry and office. Staffs are not allowed to assemble in the pantry and office. Three staffs are limited to rest or eat in the pantry.



Hospital Tambunan

Nore Azwah binti Kamisin



Pembungkusan makanan untuk dihantar ke Dewan Kuarantin.

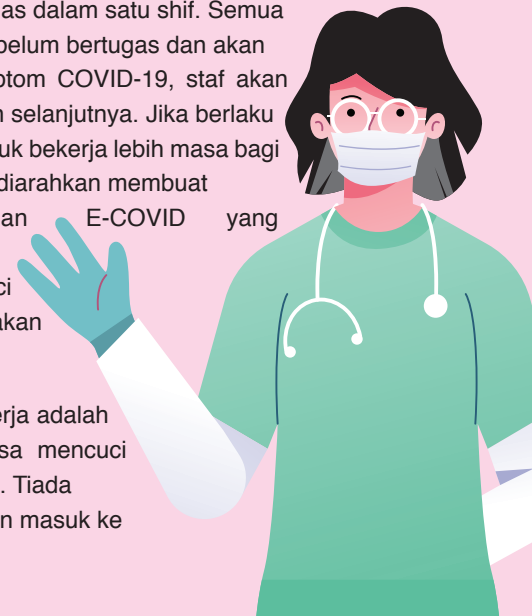


Contoh sajian makanan yang diberikan kepada pesakit Covid 19 di pusat kuarantin.

Unit Sajian: Unit Sajian menyediakan makanan bagi pesakit positif COVID-19 yang dimasukkan ke pusat kuarantin. Jika pesakit mempunyai risiko yang tinggi, mereka akan dihantar ke Hospital Keningau untuk menerima rawatan. Makanan yang disediakan adalah mengikut menu pesakit harian yang telah ditetapkan. Pesakit COVID mendapat hidangan penuh 4 kali sehari. Makanan akan dibungkus di dalam bekas makanan pakai buang dari unit sajian sebelum dihantar ke pusat kuarantin.

Bertugas semasa COVID-19: Unit sajian Hospital Tambunan mempunyai 5 orang pekerja, termasuk assistant catering officer jika berlaku jangkitan di kalangan pekerja, pihak occupational safety and health (OSH) akan membuat penilaian risiko sama ada unit perlu ditutup atau staf berkerja seperti biasa dengan menggunakan PPE dan penjarakan sosial. Hanya 2 orang staf sahaja yang akan bertugas dalam satu shif. Semua pekerja mesti memakai PPE yang penuh sebelum bertugas dan akan dipantau oleh ketua unit jika terdapat simptom COVID-19, staf akan diarahkan ke unit kecemasan untuk tindakan selanjutnya. Jika berlaku kekurangan staf, pekerja akan diarahkan untuk bekerja lebih masa bagi mengurangkan risiko jangkitan. Semua staf diarahkan membuat saringan melalui aplikasi MySejahtera dan E-COVID yang telah disediakan oleh pihak hospital. Selain itu pemakaian PPE yang betul, mencuci tangan, sentiasa mengamalkan penjarakan sosial dan tidak berkumpul.

Standard operasi unit sajian: Semua pekerja adalah diwajibkan memakai pelitup muka, sentiasa mencuci tangan dan mengamalkan penjarakan sosial. Tiada pekerja daripada mana-mana unit dibenarkan masuk ke unit sajian.



COVID-19 SHARING FROM SABAH HOSPITALS

Hospital Tenom

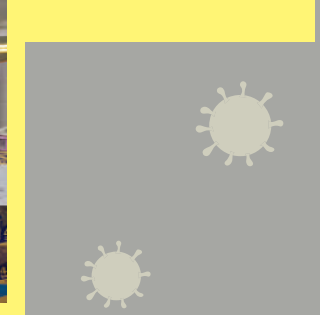
Mario Marias



Unit Sajian Hospital Tenom terletak di Pedalaman Negeri Sabah merupakan Hospital Daerah tanpa pakar yang telah berusia 61 tahun dan mempunyai 65 katil rasmi dan 63 katil operasi. Keluasan dapur adalah 61.06 m². Mempunyai lapan pusingan menu, empat kali hidangan dan kaedah penghidangan Sistem Pukul dan Penghidangan Berpusat. Manakala bilangan pekerja diketuai oleh seorang Penolong Pegawai Penyediaan Makanan C29 dan empat Pembantu Penyediaan Makanan N19. Dapur mempunyai Pensijilan HACCP.

Di awal pengisytiharan Perintah Kawalan Pergerakan pada awal tahun 2020 dimana waktu bertugas Penolong Pegawai Penyediaan Makanan bekerja selang seli di rumah dan juga di pejabat, manakala Pembantu Penyediaan makanan pula bekerja seperti biasa dimana dua kakitangan bertugas syif pagi (6.00 pagi sehingga 1.00 petang) dan dua kakitangan lagi bertugas syif petang (11.00 pagi-6.00 petang). Semua kakitangan bekerja dengan penjarakan sosial, kerap mencuci tangan dan sentiasa memakai PPE. Pembekal yang menghantar makanan diwajibkan membuat saringan kesihatan di kaunter hadapan sebelum masuk ke Unit Sajian. Begitu juga semua staf diarahkan membuat saringan melalui aplikasi MySejahtera Pada waktu itu tiada pesakit COVID-19, hanya pesakit dalam biasa dalam wad, oleh itu perhidangan makanan masih seperti biasa seperti sebelum ini.

“Kusangka panas hingga ke petang, rupanya hujan ditengahari” di awal PKP sangat terkawal tetapi pada awal Oktober 2020 seluruh daerah di Negeri Sabah terkesan dengan jumlah kes positif meningkat secara tiba-tiba disebabkan pandemik ini. Pesakit yang



telah dikesan positif berisiko tinggi di daerah Tenom terus dihantar ke Hospital Keningau. Kini Pusat Kuarantin dan Rawatan COVID-19 Risiko Rendah (PKRC) diwujudkan di Dewan Kompleks Sukan Tenom.

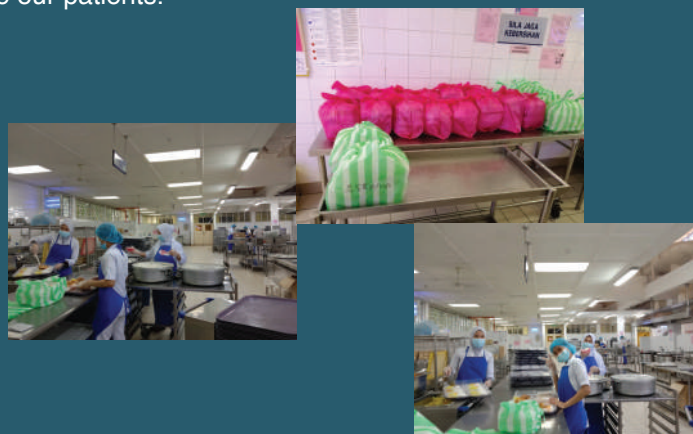
Sebagai langkah awal yang telah dibuat oleh Unit Sajian selain daripada memohon menambahkan kuantiti bahan mentah makanan dan minuman dalam kontrak. Pembelian keperluan secara terus seperti kontena makanan, gelas, sudu garfu pakai buang, bakul plastik untuk membawa kontena makanan, dan lain- lain jenis plastik yang berkaitan untuk membungkus makanan dan minuman. Selain itu, ramai orang awam dan NGO memberi sumbangan berbentuk wang, makan dan minuman. Selain pesakit COVID, Unit Sajian juga membekalkan Makanan kepada Petugas COVID. Pengangkutan makanan ke dewan PKRC disediakan oleh Unit Pemandu Hospital.



Hospital Lahad Datu

Shamini Chandrasee Kharan

In early of the year, the number of cases in Lahad Datu was not high; thus Dietetic dan Food Service doesn't struggle much to provide food for COVID-19 patient and frontliners. The most food served in total for COVID ward were less than 50 pax per meal in a day. Somehow the cluster was first reported on September 1 among detainees at a police lockup in Lahad Datu. Almost 6 wards have been utilized for COVID-19 cases and for the patients who were admitted in COVID related ward. Inpatient dietetic counselling was given through phone call. For food service, the food was given as packed food, and the food is not allowed to be returned to the Dietetic and Food Service Department. Starting from September 2020, the food productivity increased up to 700 pax inclusive of all ward, quarantine centre and frontliners. Thus, our team was separated into the ward and centre cooking team; each team consist of 3-4 staffs. Due to most of our hospital staff been quarantine and to avoid outside contact, dietetic outpatient counselling was conducted through video call via Zoom application. Even though this pandemic needs us to adjust to the new norm, and it makes us tired physically, yet we tried our best to serve our patients.



COVID-19 SHARING FROM SABAH HOSPITALS

Hospital Duchess of Kent Sandakan

Haninorzaimi binti Mohd Haimi

Masalah Pandemi yang berlaku di seluruh dunia telah menghantui rakyat Malaysia terutamanya di Negeri Sabah. Sejak minggu ketiga bulan September, jumlah pesakit semakin meningkat dan Hospital Duchess Of Kent telah dijadikan Hospital COVID bersama beberapa hospital yang lain di Negeri Sabah. Keadaan ini telah menjadikan Jabatan Dietetik dan Sajian salah satu tunjang belakang yang tidak kurang pentingnya berbanding barisan hadapan yang bertungkus lumus menangani wabak ini. Antara perkara yang ingin dikongsikan adalah tindakan-tindakan serta cabaran yang dihadapi sepanjang keadaan ini. Kami ringkaskan keadaan ini dari segi dua perkhidmatan iaitu Perkhidmatan Makanan Pesakit dan Perkhidmatan Dietetik.

Isu utama adalah jumlah hidangan makanan yang meningkat memandangkan jumlah katil untuk kes COVID di hospital telah diputuskan sebanyak 185 katil dan 3 Pusat Rawatan COVID Risiko Rendah (PKRC) berjumlah 580 katil. Jumlah bed occupancy rate (BOR) untuk kes COVID hampir mencecah 76%. Kesemua hidangan makanan ini dibekalkan dalam bekas pakai buang. Selain dari pesakit, pihak hospital juga telah memutuskan anggota yang bertugas di wad COVID juga perlu mendapat bekalan makanan, hal ini menjadikan jumlah bekalan makanan sehari mencecah sehingga melebihi 700 hidangan termasuk pesakit dalam. Tindakan yang telah diambil adalah membuat perolehan darurat secara outsource bagi bekalan makanan ke PKRC. Selain itu, perolehan darurat juga terpaksa dibuat bagi pembelian bekas pakai buang memandangkan penggunaan seharian meningkat 2 kali ganda. Selain itu, arahan kerja lebih masa juga dikeluarkan bagi memastikan jumlah anggota yang bertugas mencukupi kerana hidangan secara pakai buang memerlukan jumlah anggota yang ramai bagi memastikan makanan keluar mengikut masa yang telah ditetapkan.

Selain itu, perubahan serta tambah baik perkhidmatan bagi Perkhidmatan Dietetik pula melibatkan rawatan pesakit di wad COVID hanya dijalankan secara atas talian melalui panggilan telefon bagi mengurangkan risiko jangkitan. Bagi kes-kes yang memerlukan pegawai mendapat maklumat lebih mendalam, pegawai akan berhubung dengan pihak wad di luar wad di bahagian atau tempat yang telah dikhaskan dan maklumat dimasukkan ke dalam case note menggunakan sistem komputer. Selain itu, semua kes-kes kaunseling secara berkumpulan dibuat secara atas talian menggunakan platform Facebook terutama bagi kes gestational diabetes mellitus (GDM) dan kes non-communicable disease (NCD) yang lain. Jumlah kehadiran pesakit di klinik pesakit luar juga dikurangkan kepada 5 kes sehari bagi memastikan kehadiran pesakit ke hospital dapat dihadkan.

Pada 4 November 2020, berlaku peristiwa yang paling ditakuti iaitu terdapat anggota di jabatan ini dikesan positif COVID dan menyebabkan jabatan ini terpaksa ditutup bagi tujuan terminal cleaning. Selain itu, terdapat sebilangan besar anggota terpaksa dikuarantin sehingga keputusan swab negatif. Kejadian ini menyebabkan dapur terpaksa beroperasi secara minima. Untuk tempoh 4 hari sewaktu pembersihan, makanan dibekalkan oleh outsource melalui perolehan darurat untuk PKRC. Setelah 4 hari sehingga tempoh satu minggu pihak sajian hanya membekalkan diet terapeutik ke wad, manakala diet normal masih diteruskan oleh pihak outsource. Bagi bekalan produk enteral, produk ini diserahkan kepada pihak wad mengikut tin asal tanpa ditimbang terlebih dahulu. Semua kes Ryles Tube Feeding hanya diberikan regim standard sehingga pegawai dietetik turun bertugas semula. Setelah 12 hari jabatan ini beroperasi minima, akhirnya pada 16 November 2020 Jabatan ini beroperasi semula dengan mengamalkan standard operating procedures (SOP) yang lebih ketat.

Apa yang dapat disimpulkan, keadaan pandemik ini menjadikan jabatan ini lebih menghargai antara satu sama lain. Selain itu, tanpa kerjasama dan bantuan dari pihak pengurusan dan pihak lain, perkhidmatan Dietetik dan Sajian boleh terjejas dengan teruk malah kemungkinan besar pesakit tidak dapat dibekalkan makanan. Kejadian ini juga mengajar kami dan memberikan pengalaman yang sangat berharga terutama dari segi penyelesaian masalah. Anggota juga lebih berdisiplin dan berusaha mematuhi SOP yang telah ditetapkan.



COVID-19 SHARING FROM SABAH HOSPITALS

Hospital Queen Elizabeth

Margareta Leong

Pandemik COVID-19 telah mengubah norma masyarakat di seluruh dunia. Hospital Queen Elizabeth yang terletak di Kota Kinabalu merupakan salah satu hospital Kementerian Kesehatan Malaysia di Sabah yang merawat pesakit kes COVID-19. Dengan itu, Perkhidmatan Dietetik tidak terkecuali daripada perubahan baharu ini di dalam penyampaian perkhidmatan kepada pesakit. Pegawai Dietetik di Hospital Queen Elizabeth memberikan perkhidmatan Medical Nutrition Therapy (MNT) kepada pesakit dalam dan pesakit luar serta membuat lawatan klinikal dietetik ke Hospital Kudat. Bagi memastikan perkhidmatan Dietetik dapat diteruskan dalam norma baharu, beberapa perubahan terhadap proses kerja telah dilakukan.

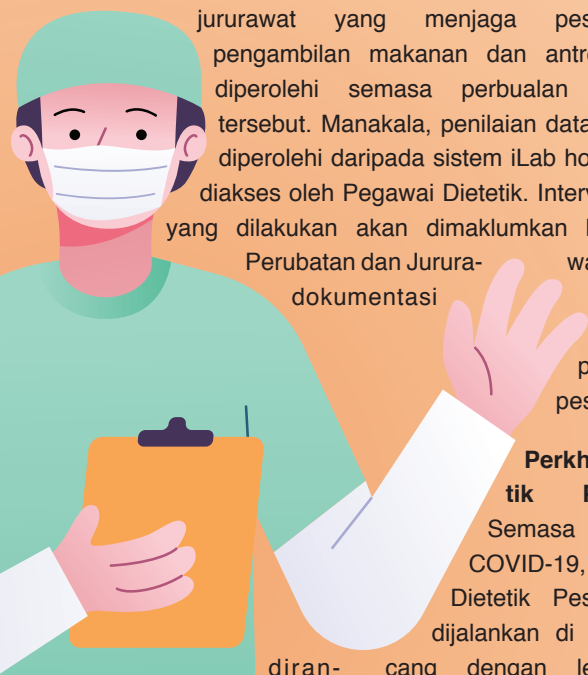
Perkhidmatan Dietetik Pesakit Dalam: Pegawai Dietetik sebagai petugas kesihatan adalah wajib untuk memastikan langkah-langkah pencegahan jangkitan COVID-19 diambil pada setiap masa, terutamanya semasa menyampaikan perkhidmatan MNT kepada pesakit di dalam wad. Bagi pesakit bukan kes COVID-19 yang dirujuk, Perkhidmatan Dietetik diberi mengikut proses kerja seperti biasa iaitu secara individu dan secara bedside consultation. Namun, penekanan diberikan kepada penjarakan fizikal, amalan kebersihan tangan dan pemakaian alat pelindung diri seperti 3-ply surgical mask dan face shield atau safety goggles semasa menjalankan tugas. Bagi pesakit kes COVID-19 yang dirujuk pula, Pegawai Dietetik tidak melakukan bedside consultation tetapi perkhidmatan diberi melalui panggilan telefon. Majoriti pesakit COVID-19 yang dirujuk adalah pesakit yang memerlukan pemakanan melalui tiub dan pesakit yang mengalami kekurangan pengambilan makanan secara oral. Penilaian pemakanan pesakit COVID-19 dilakukan berdasarkan maklumat yang diperolehi melalui panggilan telefon kepada Pegawai Perubatan yang merujuk pesakit dan juga jururawat yang menjaga pesakit. Penilaian pengambilan makanan dan antropometri pesakit diperolehi semasa perbualan melalui telefon tersebut. Manakala, penilaian data biokimia pesakit diperolehi daripada sistem iLab hospital yang boleh diakses oleh Pegawai Dietetik. Intervensi pemakanan yang dilakukan akan dimaklumkan kepada Pegawai Perubatan dan Jururawat bagi tujuan dokumentasi di dalam nota kes pesakit dan pesanan diet pesakit.

Perkhidmatan Dietetik Pesakit Luar: Semasa pandemik COVID-19, Perkhidmatan Dietetik Pesakit Luar yang dijalankan di Klinik Diet telah dirancang dengan lebih teliti bagi mematuhi SOP yang ditetapkan. Penjadualan semula Klinik Diet telah dilakukan dan pesakit yang akan dilihat adalah bergantung kepada keutamaan jenis kes pesakit. Langkah

berjaga-jaga dan prosedur operasi standard hendaklah dipatuhi oleh semua Pegawai Dietetik sebelum, semasa dan selepas Klinik Diet dijalankan. Pesakit yang hadir ke Klinik Diet akan melalui saringan kesihatan terlebih dahulu sebelum dibenarkan masuk ke dalam klinik. Semasa sesi klinik diet, amalan penjarakan fizikal, pembersihan tangan, pemakaian 3-ply surgical mask dan face shield atau safety goggles perlulah dipraktikkan. Selepas setiap sesi klinik diet, pembersihan dan sanitasi peralatan dan kerusi yang digunakan pesakit akan dilakukan sebelum digunakan untuk pesakit lain.

Lawatan Dietetik Klinikal ke Hospital Kudat: Sebelum pandemik COVID-19, Pegawai Dietetik dari Hospital Queen Elizabeth akan melakukan lawatan dietetik klinikal ke Hospital Kudat yang terletak 190 km di utara negeri Sabah. Lawatan ini dijalankan pada setiap dua bulan kerana hospital tersebut tidak mempunyai Pegawai Dietetik. Semasa sesi lawatan, Perkhidmatan Dietetik secara berkumpulan akan dilakukan kepada pesakit yang dirujuk dari Klinik Pesakit Luar hospital dan juga Klinik Kesihatan di sekitar daerah Kudat. Namun begitu, berikutan penularan kes COVID-19 di negeri Sabah, perjalanan merentas daerah adalah tidak dibenarkan. Oleh itu, perbincangan telah dibuat dengan pihak Hospital Kudat untuk meneruskan Perkhidmatan Dietetik kepada pesakit di sana dengan menjalankan kelas pendidikan pemakanan berkumpulan bagi pesakit Gestational Diabetes Mellitus (GDM) secara Virtual Conference (VC) menggunakan aplikasi Zoom. Pesakit GDM akan dikumpulkan di Hospital Kudat dan SOP hendaklah dipatuhi oleh setiap pesakit semasa mengikuti kelas pendidikan secara VC.

Usaha membudayakan norma baharu dalam menyampaikan Perkhidmatan Dietetik adalah menjadi tugas dan tanggungjawab setiap Pegawai Dietetik. Walaupun pada awalnya menghadapi sedikit kesukaran dan cabaran, namun, pelbagai pengalaman dan pembelajaran baru dari segi kemudahan teknologi dapat dipelajari oleh Pegawai Dietetik terutamanya dalam menyampaikan perkhidmatan yang berterusan kepada pesakit yang memerlukan.



Kelas Pendidikan Pemakanan Gestational Diabetes Mellitus (GDM) secara Virtual Conference

COVID-19 SHARING FROM SABAH HOSPITALS

Hospital Tawau

Author: Esther Alim Albert
Dzairudzee binti Rosli

Penyediaan dan Bekalan Makanan oleh Hospital Tawau ke Pusat Kuarantin dan Rawatan COVID-19 Berisiko Rendah (PKRC)

i) Institut Latihan Kementerian Kesihatan Malaysia (ILKKM), Dewan Serbaguna Kompleks Sukan Tawau dan Dewan Kebudayaan Belia dan Sukan Tawau (Dewan Arena)

Jabatan Dietetik dan Sajian (JDS) Hospital Tawau (HTWU) telah diberikan tugas untuk menguruskan bekalan makanan bermasak secara outsourcing kepada pesakit dan petugas di beberapa pusat kuarantin iaitu ILKKM, Dewan Serbaguna Kompleks Sukan Tawau dan Dewan Kebudayaan Belia dan Sukan (DEWAN ARENA). Pembekalan makanan secara outsourcing ini telah dimohon oleh pihak pengurusan Hospital Tawau dan telah mendapat kelulusan untuk memulakan bekalan pada 1 Oktober 2020. Sebelum memulakan bekalan pihak JDS dan pengurusan hospital telah menjalankan perbincangan awal bersama pihak katerer yang dilantik berkaitan tatacara bekalan merangkumi kaedah pesanan, kaedah penyediaan makanan iaitu pemilihan bahan mentah serta porsi juga cadangan menu, kaedah penyediaan makanan, pembungkusan, penghantaran dan pemantauan kualiti makanan. Selain itu bagi memastikan pihak katerer mematuhi tatacara pengendali makanan dan penyediaan makanan pihak JDS telah menjalankan lawatan premis bersama pihak Pejabat Kesihatan Kawasan yang terdiri dari Pegawai Teknologi Makanan dan Penolong Pegawai Kesihatan dan Persekitaran sebelum pihak katerer memulakan bekalan.



Hospital Medan Kompleks Sukan Tawau

Selain petugas di pusat kuarantin, pihak outsource juga membekalkan makanan kepada staf 'deploy' yang ditempatkan di ILKKM untuk membantu Hospital Tawau yang mempunyai kekangan sumber manusia semasa kes COVID meningkat. Staf-staf deploy ini termasuk pakar, pegawai perubatan, penyelia jururawat, jururawat terlatih dan penolong pegawai perubatan.

Setelah pembekalan makanan berjalan, pihak JDS sentiasa terlibat sama dalam pemantauan kualiti makanan bagi memastikan makanan yang dibekalkan menepati nutrien dan tatacara penyediaan makanan dengan menjalankan pemeriksaan secara berkala ke premis katerer selain membuat ujirasa (menilai rasa, ketepatan porsi dan kesesuaian menu). Selain itu, pihak katerer juga diminta untuk membuat holding sample bagi setiap makanan yang dibekalkan bagi tujuan analisis makanan jika diperlukan.

ii) Hospital Medan Angkatan Tentera Malaysia Tawau, Sabah

Hospital Medan Angkatan Tentera Malaysia (ATM) Tawau dibina hasil kerjasama pihak ATM dan Kementerian Kesihatan Malaysia (KKM) yang terletak di Kompleks Sukan Tawau iaitu 5.8 km dari Hospital Tawau bagi menyokong Hospital Tawau merawat kes bukan COVID-19. Ia merupakan kesinambungan daripada Operasi Penawar (Op Penawar) bagi ATM membantu agensi awam dan pihak kerajaan dalam menangani penularan pandemik COVID-19 yang memulakan operasi pada 20 Oktober 2020. Hospital Medan ini dilengkapi dengan kemudahan pesakit dalam pelbagai disiplin seperti pembedahan, perubatan, kanak-kanak dengan kapasiti 100 katil dan disokong dengan kemudahan makmal, X-ray dan farmasi.

JDS HTWU turut terlibat bagi menyokong operasi Hospital Medan ini dari aspek dietetik klinikal iaitu menerima rujukan pesakit bagi tujuan intervensi dietetik (pemakanan oral, sokongan pemakanan dan pemakanan melalui tiub enteral) dan pengurusan bekalan makanan pesakit juga petugas.

Bekalan makanan bermasak kepada pesakit di Hospital Medan ialah melalui dua cara pembekalan, diet normal dan petugas kesihatan (dokter atas panggilan) secara outsourcing kepada pihak katerer yang dilantik melalui perolehan darurat khas untuk Hospital Medan manakala bagi diet terapeutik dibekalkan oleh JDS HTWU.

Hospital Tawau

Author: Esther Alim Albert
Dzairudzee binti Rosli

Pembekalan Makanan ke Pesakit dalam Wad Hospital Tawau semasa terdapat kakitangan JDS mendapat jangkitan COVID-19

Operasi perkhidmatan makanan JDS terganggu pada 7 Oktober 2020 hingga 18 Oktober 2020 apabila seorang (1) Pembantu Penyediaan Makanan (PePM) disahkan positif Covid-19 manakala tujuh (7) orang lagi diarahkan kuarantin selama 14 hari kerana merupakan kontak rapat kepada kakitangan yang disahkan positif iaitu terdiri dari dua (2) Penolong Pegawai Penyediaan Makanan dan lima (5) Pembantu Penyediaan Makanan. Seorang Pegawai Dietetik turut dikuarantin ketika ini kerana mempunyai kontak rapat dengan kes positif yang berbeza. Ketika ini operasi penyediaan makanan kepada pesakit hanya mampu bergerak satu pertiga dari jumlah penyediaan biasa dengan kapasiti sumber manusia yang masih ada.

Pelbagai modifikasi kerja penyediaan makanan untuk pesakit di dalam wad telah dijalankan bagi memastikan perkhidmatan JDS dioptimumkan dan membolehkan kesemua penyediaan diet terapeutik pesakit masih dibekalkan oleh JDS. Manakala bekalan makanan bagi diet normal untuk pesakit dan petugas di dalam wad telah dipersetujui untuk di outsource kepada pihak katerer.

Bagi mengoptimumkan tenaga kerja di operasi penyediaan makanan dan saling berganding bahu, Pegawai Dietetik telah mengambil alih tugas penyediaan produk enteral iaitu penyediaan rumusan dari pesanan produk, pembungkusan semula, melabel, pengagihan dan pembekalan kepada wad.

JDS seterusnya telah beroperasi seperti biasa pada 19 Oktober 2020 apabila kakitangan yang dikuarantin telah dibenarkan bertugas kembali.

Perkhidmatan Dietetik semasa Pandemi COVID: Pengendalian Kes COVID di Critical Care Setting

i) Perkhidmatan Dietetik Pesakit dalam Wad dan Pesakit Luar

Pegawai Dietetik menerima rujukan dari pesakit bukan kes COVID-19 dan COVID-19. Bagi kes COVID-19 Pegawai Dietetik akan mengendalikan kes melalui telefon dengan pihak wad dan Dietetic Care Notes akan dibekalkan ke wad melalui Pembantu Perawatan Kesihatan yang akan menghantar diet ke wad tersebut untuk difailkan bersama fail pesakit. Bagi pesakit luar pula, temujanji pesakit diklasifikasikan mengikut keutamaan diagnosis dengan kes urgent masih dijalankan mengikut temujanji dan pematuhan SOP diamalkan setiap masa.

ii) Lawatan Perkhidmatan Dietetik Klinikal

Jadual lawatan ke hospital lawatan di bawah jagaan iaitu Hospital Kunak dan Hospital Semporna dan Klinik Kesihatan iaitu Klinik Kesihatan Tawau dan Klinik Kesihatan Merotai turut dijadualkan semula mengikut situasi semasa. Namun Perkhidmatan dietetik klinikal kepada pesakit yang dirujuk masih berjalan dengan menggunakan kaedah virtual consultation selain berinteraksi secara panggilan telefon bagi memastikan pesakit tetap mendapat intervensi diet walau dalam limitasi yang ada.



Pengawai Dietetik membuat pembungkusan produk enteral di Klinik Dietetik semasa Dapur 'partially closedown'. Klinik Dietetik terpaksa ditutup selama 14 hari



Pihak JDS menerima diet normal yang dibekalkan oleh pihak outsource semasa dapur partially closedown

Hospital Beaufort

Lee Ying Hui

A COVID-19 Quarantine and Treatment Center (PKRC) for Low-Risk Cases located at Dewan Serbaguna Selagon with the capacity of 98-beds has been started to operate on October 7 2020. Among all the unit involve, Dietetic and Food Service Unit is responsible to cater food for patients and front liners at the PKRC. Below are some challenges that we faced and the and our solutions.

(i) Inadequacy of raw material: Inadequacy of raw materials in current food contract to support these additional scopes of service.

Solution: The estimation and revision been made and presented to the Hospital Director. An approved proposal is submitted for application of additional budget from the Sabah State Health Department.

(ii) Food handling and delivery: Disposable food wares are required in the meal service for the PKRC while addressing workforce and hygiene concern.

Solution: Discussion done with the management for additional budget needs for disposable food wares including cutleries, food container, etc.

(iii) Manpower: Involvement from whole staffs in the unit - 7 Pembantu Penyediaan Makanan (PePMs), 1 Assistant Catering Officer & 1 Dietitian. It is more challenging when there are staffs given quarantine leave due to in contact with confirmed/suspicious case.

Solution: Assistant catering officer and dietitian assisting PePMs in food packaging. Occasionally, the assistant catering officer will help PePMs in cooking activities.

Dietetic and Food Service Unit believes that eating a balanced diet with good nutrition is important because it is the key to good mental and physical health. We, as a team, always strive for excellence in making sure of smooth operation.



PKRC Selagon Beaufort



Special Meal for Frontliners-Nasi Tomato

Diet sodas are popular beverages all over the world, especially among people who want to reduce their sugar or calorie intake. Instead of sugar, they are sweetened with artificial sweeteners which contribute very few to no calories. Almost every popular sugar-sweetened beverage on the market has a "light" or "diet" version – Diet Coke, Coke Zero, Pepsi Max, Sprite Zero, etc. To address the health consequences associated with regular soft drink consumption, diet soda has been marketed as a healthier alternative due to their lack of sugar. Despite being free of sugar and calories, the health effects of diet drinks and artificial sweeteners remained controversial.

Some research has linked a wide range of chronic disease risks to drinking diet soda:

- A systematic review study led by Imamura from the University of Cambridge has reported that one serving of an artificially sweetened beverage (ASB) per day is sufficient to associate with a 25% greater incidence of type 2 diabetes¹. Although ASB showed a positive association with incident type 2 diabetes, the quality of evidence is still limited by potential bias in study design. However, the review study suggested that ASB are not suitable to be an alternative for sugar-sweetened beverages to prevent type 2 diabetes.

- The population-based Multi-Ethnic Study of Atherosclerosis (MESA) found that daily consumption of diet soda was associated with 36% and 67% greater relative risks of incident metabolic syndrome and type 2 diabetes mellitus, respectively, compared with non-consumption².

- A meta-analysis found an association between artificially sweetened soda and hypertension with an overall 1.15-fold increased risk of hypertension compared to those who did not drink diet soda in both genders³. However, the underlying explanation for this association is unclear.

Although plausible biological mechanisms explaining these associations are limited, research suggested that artificial sweeteners in diet soft drink increase the need for sweet, energy-dense foods or beverages and disrupt an individual's ability to accurately estimate energy intake and energy needs, both of which may lead to increased consumption of calories^{4,5}. In addition, artificial sweeteners may also promote irregular in weight and glucose regulation by altering the balance of bacteria that colonize the gut. Animals studies have demonstrated increases in weight gain associated with alterations in gut bacterial populations in response to artificial sweeteners⁶, and small studies in humans have suggested a difference in bacterial populations in consumers of artificial sweeteners compared to non-consumers⁷. Nonetheless, there's not yet enough evidence to say that diet soda is absolutely affecting individual health.

Alternatives to diet sodas

Regardless, one thing that is certain is diet soda does not add any nutritional value to your diet. Therefore, if you're looking to replace regular soda in your diet, other options may be better than diet soda. Next time, try an alternative like milk, coffee, black or herbal tea, or water infused with fruits.

Reference:

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BOOK YOUR CALENDAR - MDA UPCOMING EVENTS

1

26th Malaysian Dietitians' Association National Conference 2021

Theme : Dietetics in Aging and Elderly: Improving Nutrition care Outcomes

Date : 19-21 June, 2021

Venue : Hotel Istana, Kuala Lumpur (tentative)

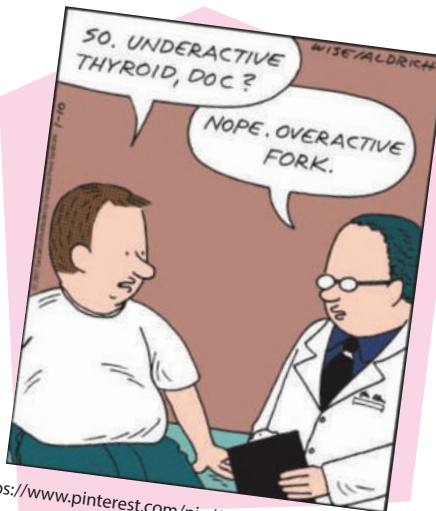
2

Series of Webinar organized by MDA

will be continued

The above events may be subject to change. Kindly refer to the latest news shared by email from the **Malaysian Dietitians' Association**. If you have any inquiries on the events, please email to the secretariat (admin@dietitians.org.my)

HAVE A LAUGH
- DIET JOKES



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"My body is apple-shaped and yours is pear-shaped. How can we be unhealthy if we look like a fresh fruit salad?"

<https://www.pinterest.com/pin/69242912992273540/>

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