

出國報告(出國類別：國際會議)

## 美國癌症研究所 2021 年研討會議 (AICR' s 2021 Research Conference)

服務機關：成大醫院

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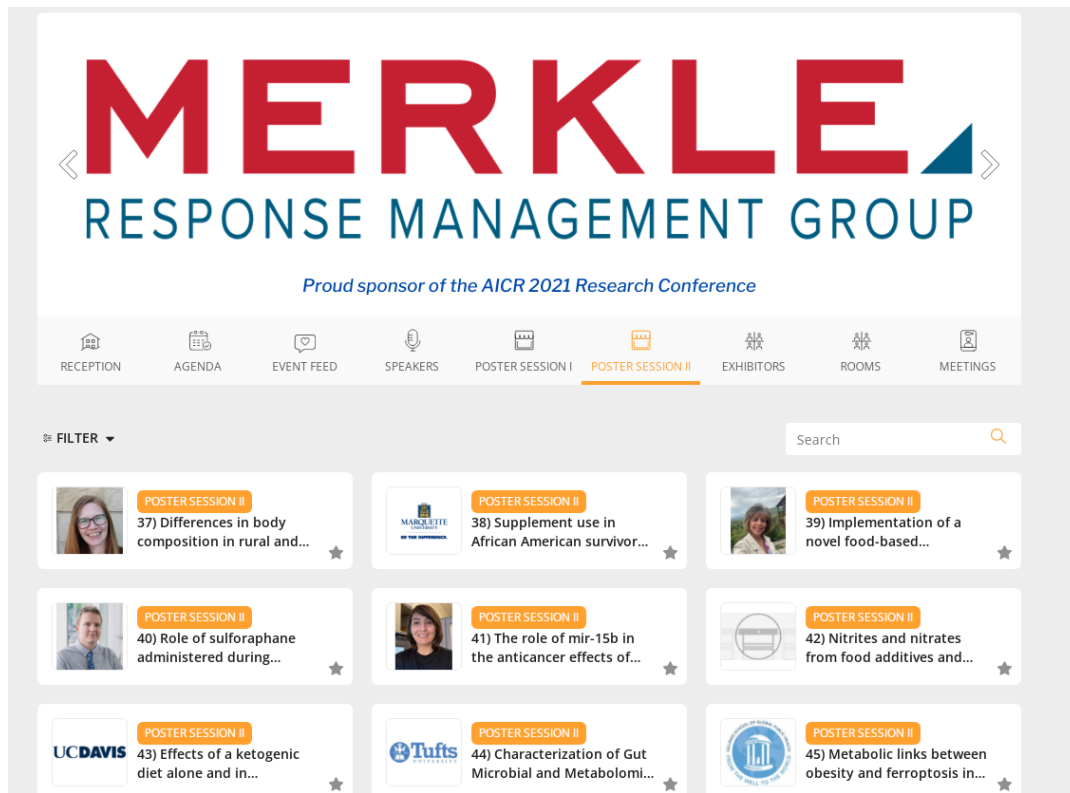
## 摘要

此次在美國舉辦的癌症研究所 2021 年研討會議，其論文主題包含癌症預防、教育、治療等，主要在分享彼此在各個不同領域的研究成果或是臨床實務的經驗分享。此次活動除了發表論文分享本院在癌症病人的介入成效及研究結果，也藉此機會看看其他各國在各自領域營養工作的投入與成效，吸取新知。此行不僅達成預期目標，與會的心得是臺灣在營養治療的發展是具有國際水準的，有關演講的啟示及與會心得將於後面的過程內容中進行說明。

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## 一、目的


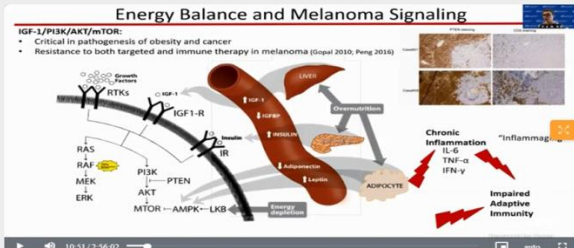
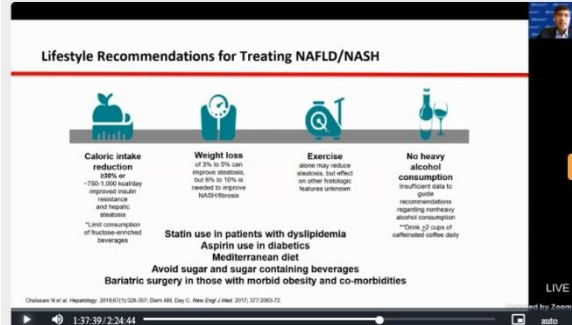
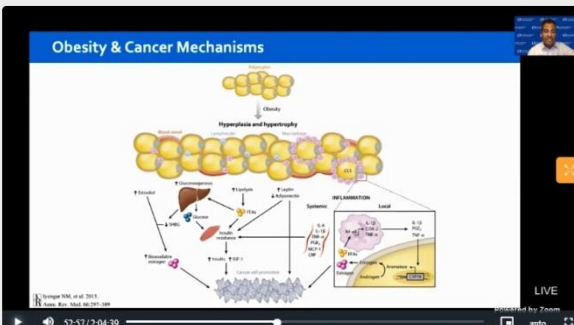
參加學術活動的目的主要在呈現專業實務的成果，並藉機會學習他人的長處與作法，據以改善日後的工作，持續精進；藉此機會標竿學習美國針對癌症預防、癌症存活及癌症預防等政策與發展方向。此次參與美國癌症研究所 2021 年研討會議，其論文主題包含癌症預防、教育、治療等。大會徵文的主題包含癌症營養策略、癌症研究、健康飲食健康促進之方案等，可謂範圍廣泛，而且在 COVID-19 疫情嚴峻的當下有許多與會者也分享了相關的因應措施，豐富了國際視野。此次活動本院營養師除了發表論文分享本院在臨床研究的成果之外，也藉此機會看看不同國家在各個不同領域營養治療的發展與研究，了解營養同業在不同國家營養治療相關議題上遇到的問題與解決方案，並吸取新知提升日後工作或研究的靈感，做為本院訂定工作計畫之參考，也增加國家的曝光度。



<參與 AICR 與各國與會者交流>

## 二、過程

此次110年11月1日~110年11月3日於美國東部時間舉辦之美國癌症研究所2021年研討會議(AICR's 2021 Research Conference)，由營養部賴慧珊、李蕙馨、李雅萍營養師參與，會議重點主要聚焦於癌症營養方面的創新與應用。本院與會者的專業在臨床營養的部分，以下將與會演講聽到的重點與發表的論文內容摘述如下：

 <p>Conference Opening and Welcome 2nd November, 2021 - 01:00 AM - 01:15 AM</p> <p>Speakers Wendy Demark-Wahnefeld, PhD, RD at University of Alabama Birmingham Edward Giovannucci, MD, ScD at Harvard University Deirdre McGinley-Gieser, American Institute for Cancer Research</p>	 <p>Energy Balance and Melanoma Signaling</p> <p>IGF-1/PI3K/AKT/mTOR: Critical in pathogenesis of obesity and cancer; Resistance to both targeted and immune therapy in melanoma (Gopar 2016; Peng 2016)</p> <p>Plenary 2: Lifestyle impacts on immunotherapy 2nd November, 2021 - 09:00 PM - 12:00 AM</p> <p>Kathryn Schmitz, PhD, MPH Neil Iyengar, MD</p>
<p>▲會議開場</p>	<p>▲生活方式影響免疫療法</p>
 <p>Lifestyle Recommendations for Treating NAFLD/NASH</p> <ul style="list-style-type: none"> <li>Caloric intake reduction: 20% or -750-1,000 kcal/day</li> <li>Weight loss: 5% to 10% or 10% to 15% needed to improve NASH/fibrosis</li> <li>Exercise: some may reduce steatosis, but effect on other histologic features unknown</li> <li>No heavy alcohol consumption: reduced data to guide recommendations regarding nonalcoholic steatohepatitis</li> </ul> <p>Statin use in patients with dyslipidemia Aspirin use in diabetics Mediterranean diet Avoid sugar and sugar containing beverages Bariatric surgery in those with morbid obesity and co-morbidities</p> <p>Plenary 3: Cancers on the rise 3rd November, 2021 - 02:30 AM - 05:00 AM</p> <p>Melissa Hudson, MD Jeff Meyerhardt, MD, MPH</p>	 <p>Obesity &amp; Cancer Mechanisms</p> <p>Plenary 4: What can we tell our patients? 3rd November, 2021 - 09:00 PM - 11:00 PM</p> <p>Jeffrey Meyerhardt, MD, MPH Erik Nelson, PhD</p>
<p>▲非酒精性脂肪肝/非酒精性肝炎生活型態建議</p>	<p>▲肥胖與癌症的機轉</p>

該會議主題相當多元，從基礎研究例如肥胖與癌症的相關機轉到生活型態的建議均有分享，其中一篇澳洲世代研究，針對卵巢癌病人治療後的飲食習慣統計，印象最深刻的是病友回饋中有一則表示“生駱駝奶具有藥性，可能會是選擇之一”，這在亞洲國家的我們是相當罕見的，臨床上也比較少去建議癌症治療後的病友飲用生奶，還是以六

大類食物均衡飲食為主要建議策略，在營養建議策略上仍要考量文化民請與接受度。

此次 AICR 的壁報論文中除了細胞動物實驗之外的人體研究，多數針對已罹患癌症的病人(例如：乳癌或大腸直腸癌的病人)進行相關研究；針對罹癌且已接受過外科切除後的病人，除了給予飲食衛教之外，更進一步聚焦於身體組成及治療成果間的關聯性。

在日常生活中的飲食除了維持健康體態、降低飽和脂肪與反式脂肪的食物攝取、減少紅肉及相關製品與精緻糖類的攝取、增加全穀雜糧的種類與頻率、攝取足夠的蔬果以補充天然植化素等抗氧化物質之外，強調不應以保健食品等補充來取代天然食物；更重要的是藉由增加運動頻率與重訓來提升肌肉量，除了有助於日常生活的 ADL 外，也能增加癌症存活率與減少疾病治療的併發症。以上建議方針，與目前營養師們在臨床上執行的營養建議策略相同。

### 論文報告舉例

此篇在分享 COVID19 疫情下之營養教育，主要是為患者及照護者提供虛擬之營養教育，其做法對本院而言較為創新，其執行方法並不困難，值得參考。其方法主要是使參與者參與支持團體並在部落格定期發表文章，也提供在線註冊的功能，並舉辦虛擬營養教育。於執行 1 個月發送電子郵件問卷調查其飲食及生或習慣是否改變。回應的問卷表示其飲食習活習慣有所改變，且腫瘤醫療團隊認為此方法可能比過去面對面的營養教育方法，可接觸更廣泛的民眾。

**How Our Oncology Nutrition Educational Programs Survived the Pandemic**  
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**BACKGROUND**

- The Abramson Cancer Center and Penn Radiation Oncology is a large, urban comprehensive cancer center in Philadelphia, Pa.
- The outpatient oncology registered dietitians had been providing in-person nutrition programs to patients, family members and staff prior to the COVID-19 pandemic.
- To continue providing evidence-based nutrition education while working remotely, the oncology nutrition team developed a variety of virtual nutrition programs for the patients, caregivers and staff.

**OBJECTIVES**

- To create interactive and educational programming for patients and caregivers at the Abramson Cancer Center and Penn Radiation Oncology despite the Covid-19 pandemic restrictions.
- To offer virtual nutrition education for patients and caregivers at satellite campuses that the nutrition team might not have otherwise been able to see.

**METHODS**

- Twelve different oncology nutrition topics, incorporating AICR guidelines were created and presented virtually each month, entitled the "Taste of Nutrition Virtual Series".
- Nutrition topics were recorded for Oncotalk.org
- In addition, presentations were delivered to 10 support groups and 30 weekly blog posts were published on Oncotalk.org during spring 2020 through summer 2021.
- Marketing of the program included patient and staff outreach, flyers to patients in chemotherapy and radiation, and through the cancer center's website with direct on-line registration for participants.
- "Taste of Nutrition" virtual participants were surveyed one month following the final presentation via an email questionnaire about their experience and any changes to their diet and lifestyle habits.

**RESULTS**

- 130 participants were registered with 76 participants attending at least one of the 12 virtual nutrition sessions.
- 5 participants responded to questionnaire, with 100% reporting positive changes to their diet and respondents appreciated the quality of presentations.

**DATA**

Number of Virtual Nutrition Sessions (Spring 2020 to Spring 2022)

Year	Number of Sessions
2020	12
2021	12
2022	12

**PARTICIPANT SURVEY COMMENTS**

"The presentation was very informative and I liked the website you suggested. I plan to make changes to my diet and use website to make meals healthier recipes."

"I enjoyed watching the presentations about diet because they offered some nutritional information that I was not aware of at all and it was easy to follow the format to buy a... or at least that is what I wanted to attempt. I did not make any changes as of now and I hope to try to eat a healthy diet. I definitely incorporated some of the recipes into our meal rotation and added even more of the experimental food and veg."

"I hope the program is able to continue as the team outreach was unexpected and wonderful. And you did a great job of moving these opportunities to virtual platforms during the pandemic circumstances to the team."

"I posted it and we, about 13 by, in 12 weeks - almost no Covid. So, smaller portions, summer's easy to get full with all the fresh fruit/veg. Thank you!!"

**CONCLUSIONS**

- Patients, caregivers and staff were very supportive and appreciative of the oncology nutrition team outreach.
- Patients who responded to the questionnaire reported implementing changes to their diet and lifestyle behaviors.
- The oncology nutrition team enjoyed presenting in this novel format and were able to reach a broader audience that might not have otherwise been reached through the prior in-person programs.

**LESSONS LEARNED**

- Prior to the pandemic, patient programs on-site were lost to attrition due to traffic and parking challenges, thus the virtual nutrition education model may be a sustainable way to provide this service to patients in the future.
- Creating these programs was time consuming to minimize preparation for each new topic, pre-recording sessions allowed improved sustainability of the program.
- Fully engaging marketing team prior to the start of the program would be instrumental in allowing dietitians to spend less time on advertisements, recruitment and registration.
- As patients and caregivers returned to their usual activities, the program saw decreased participation, thus will need to explore ways to keep patients engaged.
- Connections were formed with patients during a time when people were feeling isolated and distressed.

**REFERENCES**

- American Institute for Cancer Research. (2021). A blueprint to beat cancer: How to prevent cancer: 10 recommendations. Retrieved from <https://www.aicr.org/cancer-prevention/>

## 個人論文發表摘要(一)

報告主題：發生再餵食症候群的頭頸癌術後病人之營養不良(根據 GLIM)盛行率  
Prevalence of malnutrition based on GLIM criteria in postoperative head and neck cancer patients with refeeding syndrome.

內容摘要：

背景：

營養不良好發於頭頸癌病人，文獻指出預計手術的頭頸癌病人發生再餵食現象的比例為 52%，進展為再餵食症候群的比例為 20%。「世界領導人營養不良倡議」(Global Leadership Initiative on Malnutrition, 簡稱 GLIM 是 ASPEN 自 2016 年發展用來評估成人營養不良的診斷工具。此為回溯性研究，主要目的為了解發生再餵食症候群的頭頸癌病人中營養不良(使用 GLIM) 的比例。

方法：

回溯 2016 年六月至 2019 年三月期間入住耳鼻喉科病房且預計手術或術後的 708 份頭頸癌病人病歷，病人入住後營養師會利用 PG-SGA 進行營養評估。其中有 69 位病人符合 NICE 的再餵食症候群標準，再利用 2020 年 ASPEN 針對的再餵食症候群的嚴重度分級再進行評估。

結果：

69 位發生再餵食症候群病人的平均年齡為 58.6±9.5 歲且 88.4% 為男性，其中 52 位 (75.4%) PG-SGA 的評估為營養不良； 78.3% 屬於 GLIM 診斷標準中的體重流失且 46.4% 是低 BMI，78.3% 屬於 GLIM 診斷標準中的嚴重攝取不足。然而，69 位病人有 72.5% 為營養不良，其中 46.4 % 被認為是嚴重營養不良。

結論：

由此可知，頭頸癌病人是營養不良的高風險群；因此我們更需要採取預防再餵食症候群的措施。

關鍵字：頭頸癌、再餵食症候群、營養不良、GLIM



# Prevalence of Malnutrition Based on GLIM Criteria in Postoperative Head and Neck Cancer Patients with Refeeding Syndrome



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## Background

Malnutrition is common in patients with head and neck cancer (HNC). It is estimated that 52% of head and neck cancer patients undergoing surgery will have refeeding phenomena, and 20% will develop refeeding syndrome (RFS).<sup>1</sup> GLIM (Global Leadership Initiative on Malnutrition, GLIM) is a alongside validated tools for diagnosing malnutrition in adults and is a framework for categorization.<sup>2</sup> The purpose of this retrospective study was to investigate the prevalence of malnutrition based on GLIM criteria in postoperative HNC patients with RFS.

## Methods

This retrospective study included 708 postoperative head and neck cancer patients admitted to ears, nose and throat ward between June 2016 and March 2019. After admission, dietitian would visit patients and carry out nutritional assessment (PG-SGA). Sixty-nine patients were diagnosed refeeding syndrome based on NICE criteria at first, and the severity was subsequently analyzed based on criteria of ASPEN in 2020.<sup>3,4</sup> All patients with refeeding syndrome were screened for the risk of malnutrition according to GLIM criteria and were further classified whether the degree was moderate or severe.

## Results

**Table 1.** Patients Characteristics (n=69)

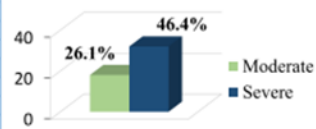
Male, n (%)	61 (88.4)
Age, n (%)	
30-60 years old	31 (44.9)
≥ 60 years old	38(55.1)
Primary cancer site, n (%)	
Buccal	34 (40.5)
Oropharyngeal	12 (14.3)
Laryngeal	3 (3.6)
Nasopharyngeal	3 (3.6)
Hypopharyngeal	21 (25)
Esophageal	4 (4.8)
Double	6 (7.1)
Triple	1 (1.2)
Stage, n (%)	
0-2	14 (20.3)
3	6 (8.7)
4A	40 (58)
4B	9 (13)
Smoking, n (%)	
None	10 (14.5)
Current user	24 (34.8)
Quit	35 (50.7)
Alcohol, n (%)	
None	24 (34.8)
Current user	15 (21.7)
Quit	30 (43.5)
Betel nuts, n (%)	
None	37 (53.6)
Current user	4 (5.8)
Quit	28 (40.6)
All three	9 (13)
None of all	26 (37.7)
Nutrition screening	
MUST ≥ 3	13 (18.8)
PGSGA ≥ 9	52 (75.4)

**Table 2.** Nutritional assessment based on 2020 ASPEN criteria of patients at risk of RFS

<b>BMI, n (%)</b>	
< 16	8 (11.6)
16 - 18.5	24 (34.8)
> 18.5	37 (53.6)
<b>Weight loss, n (%)</b>	
Significant	10 (14.5)
Severe	44 (63.8)
Unknown	4 (5.8)
None	11 (15.9)
<b>Caloric intake decrease, n (%)</b>	
Significant	11 (15.9)
Severe	43 (62.3)
Unknown	9 (13)
None	6 (8.7)
<b>Abnormal potassium, phosphorus, or magnesium serum concentrations</b>	
<b>Moderate, n (%)</b>	
(P > 2.0 mg/dL or K 3 - 3.5 mg/dL or Mg 1.5 - 2 mg/dL or 0.6 - 0.8 mM)	16 (23.2%)
<b>Significant, n (%)</b>	
(P 1 - 1.9 mg/dL or K 2.5 - 3.0 mg/dL or Mg 1.2 - 1.5 mg/dL or 0.5 - 0.6 mM)	23 (33.3%)
<b>Severe, n (%)</b>	
(P < 1.0 mg/dL or K < 2.5 mg/dL or Mg < 1.2 mg/dL or < 0.5 mM)	21 (30.4%)
All normal with decreasing	6 (8.7%)
No data during hospitalization	3 (4.3%)
<b>Higher-risk comorbidities, n (%)</b>	
Cancer	69 (100)
Dysphagia and esophageal dysmotility	44 (63.8)
Prolonged fasting	12 (17.4)
Protein malnourishment	4 (5.8)

**Table 3.** Prevalence of malnutrition by GLIM criteria in HNC patients with RFS

Malnutrition, n (%)	50 (72.5%)
Moderate	18 (26.1%)
Severe	32 (46.4%)
Unknown, n (%)	19 (27.5%)



**Fig. 1** Stage of GLIM-defined malnutrition in HNC with RFS(n=50)

## Conclusions

These facts demonstrated that head and neck cancer patients are at high risk of malnutrition. Hence, we should take precaution to prevent refeeding syndrome.

- References
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## 個人論文發表摘要(二)

報告主題：食道癌病人營養介入後成效

內容摘要：

背景：營養不良常發生在癌症病人身上，尤其食道癌病人，不管是一開始因進食困難導致進食量減少亦或抗癌治療(包含外科手術、化學治療及放射線治療等)產生的副作用導致。營養不良會降低生活品質及增加抗癌治療的副作用，據估計多達10-20%的癌症病人死於營養不良，而非疾病本身。

方法:收集 2016 到 2011 年住院中的食道癌病人，不管接受何種抗癌治療，在營養師的介入後，觀察其熱量、蛋白質攝取、體重變化及 SPG-SGA 營養狀態分布。

結果:共收案 300 位食道癌病人，男性 282 位，女性 18 位，平均年齡 59 歲，BMI 21，營養師介入後熱量攝取增加 26.3%(350.7kcal)，蛋白質攝取增加 27.6%(15.4g)。雖然體重減輕 1.6kg(2.8%)，但 PG-SGA Stage A -營養狀況良好的比例從 24.9%增加至 31.4%且 Stage C -嚴重營養不良的比例從 46.8%下降至 31%

結論：營養介入能有效增加食道癌病人進食量，改善食道癌病人營養狀況。

關鍵字：食道癌，營養介入，熱量蛋白質攝取，PG-SGA



# The effects of nutrition intervention in esophageal cancer

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## INTRODUCTION

Malnutrition often occurs in cancer patients with esophageal cancer, whether it is caused by a decrease in food intake due to dysphasia or the side effects of any treatments (including surgery, chemotherapy and radiation therapy, etc.). Studies have shown that the incidence of malnutrition after esophageal cancer surgery reaches 60-80%[1]. Malnutrition will reduce the quality of life and increase the side effects of anti-cancer treatments. It is estimated that as many as 10-20% of cancer patients die from malnutrition, rather than the disease itself [2]. Good nutritional status has been shown to improve patients' outcomes and reduce complications. Other studies have demonstrated that early and regular nutrition support during chemo and/or radiotherapy is clinically beneficial and has resulted in improved treatment tolerance and reduced weight loss during treatment[3,4]. The purpose of this study was to investigate the effect of dietitians' intervention in patients with esophageal cancer.

## METHODS

This is a retrospective study. We collected 300 esophageal cancer patients who were hospitalized from 2016 to 2011, regardless of any treatment. All patients were assessed by registered dietitians. We gave individualized dietary advice based on the patient's clinical condition, including adjusting food texture, increasing nutrient density, giving oral nutritional supplements, etc. Every visit we recorded patients' 24-hour diet recall, body weight, PG-SGA score. Follow up at an average interval of 1 to 3 months. The scored PG-SGA is used internationally as the reference method for proactive risk assessment (screening), assessment, monitoring and triaging for interventions in patients with cancer[5]. SPSS (Version 18) was used to perform statistical analysis. Wilcoxon Signed-Rank Test was used to analysis caloric, protein, body weight change and PG-SGA score. A two-side P value <0.05 was considered statistically significant.

## RESULTS

A total of 300 esophageal cancer patients, 94% were male, and the average age were 59 years old(35-88yrs). 43.7% patients received chemotherapy and 28.7% received concurrent chemo-radiotherapy. 48.7% patients had swallowing difficulty. (Table.1)

Table 1. Demographics of patients

Characteristics	N=300
Male/Female	282/18
Age mean (years); (range)	59±9.3 (35-88)
Body mass index (kg/m <sup>2</sup> )±SD	21.0±3.5
Type of treatment, n(%)	
Chemotherapy	131(43.7)
Chemo-radiotherapy	86(28.7)
Operation	37(12.3)
Radiotherapy	10(3.3)
Others	36(12)
Clinical symptoms, n(%)	
Swallowing difficulty	146(48.7)
GI symptoms	30(10)
Oral ulcer	7(2.3)
Anoxia	28(9.3)
No discomfort	106(35.3)
Others	26(8.7)

V1 means before nutrition intervention, and V2 means after nutrition intervention. After the intervention, calories and protein increased by an average of 26.3% (350.7kcal) (p<0.05)(Fig.1) and 27.6% (15.4g) (p<0.05) (Fig.2). Although the average weight loss was 1.6kg (2.8%)(p=0.08) (Fig.3), the level of PG-SGA stage-A increased from 24.9% to 31.4%, stage-C decreased from 46.8% to 31%.(Fig.4)

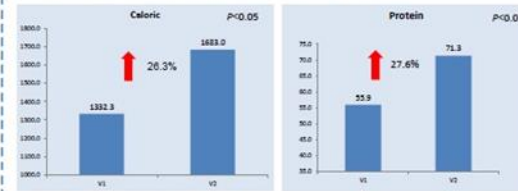


Fig.1 Caloric changes after intervention of the dietitian.

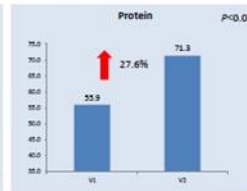


Fig.2 Protein changes after intervention of the dietitian.

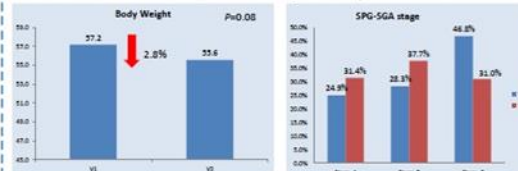


Fig.3 Body weight changes after intervention of the dietitian.



Fig.4 The level of PG-SGA before and after intervention of the dietitian.

The scored PG-SGA included not only body weight change (acute and sub-acute) assessment, but also food intake, symptoms that affect eating, functional activity, disease and its relation to nutritional requirement, age, metabolic demand and physical exam. Nutritional intervention can solve the patient's dietary problems, which could explain why the average weight loss of 1.6kg (p=0.08), there is no significant difference, but the level of PG-SGA has increased.

## CONCLUSION

Nutrition counseling and intervention could increase the esophageal cancer patient's intake and improved the nutrition status. If we can regularly follow up patients with esophageal cancer, malnutrition caused by side effects of treatment during treatment can be improved.

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### 個人論文發表摘要(三)

報告主題：營養介入對癌症病人之影響

(THE EFFECTS OF NUTRITION INTERVENTION IN CANCER PATIENTS)

內容摘述：

前言：營養不良與生活品質降低、活動度降低、增加治療相關副作用、降低腫瘤對治療反應及降低存活率有關。然而，癌症病人常發生營養不良，故本院建立由營養篩檢至介入營養高風險病人之營養照顧機制。

方法：癌症病人與入院 48 小時內以 MUST (Malnutrition Universal Screening Tool)工具完成營養篩檢，篩檢結果 2 分以上者，由營養師進行個人化營養會診。並於營養介入前後評估成效。

結果：

2020 年共收集了 2049 名癌症病人，分別為 1238 名男性和 811 名女性（平均年齡為  $61.0 \pm 13.2$  歲）。與營養介入前相較，結果顯示，癌症病人的熱量和蛋白質攝取量分別增加了 34.6% 和 36.8% ( $P < 0.05$ )。以攝取量未達需求量之 75% 定義為不足 (inadequate)。營養介入後，癌症病人可達預期熱量需求量者，由 33.1% 上升至 65.4%；癌症病人可達預期蛋白質需求量者，由 39% 增加至 65.5% ( $P < 0.05$ )。

結論：定期營養篩檢及早期個人化之營養介入可以改善癌症病人的營養攝取量。

關鍵字：食道癌、營養介入、飲食攝取、熱量、蛋白質攝取

# The effects of nutrition intervention in cancer patients



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## Background

Patients with cancer are at particularly high risk for malnutrition, both diseases and its treatments threaten the host nutritional status. An impaired nutritional status is associated with reduced quality of life, lower activity level, increased treatment-related adverse reactions, reduced tumor response to treatment and survival. However, malnutrition is common in patients with cancer. So we established nutrition care protocol start from screening at admission and implemented nutritional intervention for high risk patients.

## Method

All cancer patients were screened with MUST (Malnutrition Universal Screening Tool) within 48 hours of admission. Nutritional assessment and intervention were implemented as MUST score  $\geq 2$  with individualized nutrition counseling by dietitians. The outcomes showed the difference between the first and second visit.



RD provide nutrition education directly to inpatients at the bedside.



Nutrition Clinic



Provide variety education manual.



Provide special recipe for poor intake patients.

## Results

There were 2049 cancer patients, 1238 men and 811 women (mean age  $61.0 \pm 13.2$  years), recruited in 2020. Compared with baseline (1st visit), our data demonstrated energy and protein intake were increased by 34.6% and 36.8% separately ( $P < 0.05$ ) at 2nd visit. Total daily energy intake less than 75% of estimated requirement was considered as inadequate. After nutrition intervention, the percentage of cancer patients who reached 75% of estimated energy requirements was increased from 33.1% to 65.4%. Adequate protein intake ( $\geq 75\%$  of the requirement) was increased from 39.0% to 65.5% ( $P < 0.05$ ).

Figure1. Daily energy intake in cancer patients

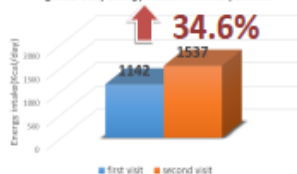


Figure2. Daily protein intake in cancer patients

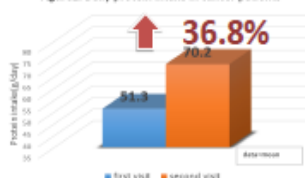


Figure.3 Energy intake of estimated daily requirements in cancer patients

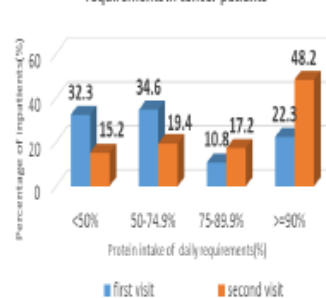
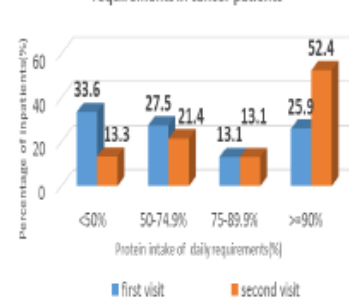


Figure.4 Protein intake of estimated daily requirements in cancer patients



## CONCLUSIONS

Periodic screening malnutrition risk and early nutrition intervention with individualized counseling can improve nutrition intake in cancer patients.



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### 三、心得與建議事項

參加線上國際研討會，主要是想汲取國際間的經驗用以回饋於病患身上；平時都在醫院治療已罹病的病人，此次藉由研討會講者的分享、眾講者由不同角度切入來看到以往看不見的盲點；包含癌症預防，營養素補充，營養治療等，近年來更注重生活品質例如，乳癌存活者運動等，因為疾病及治療的關係，體力上的疲憊及疼痛，讓存活者規律運動的機會較低，加上疫情關係，很多健身房都已經關閉，作者採用線上的方式讓病友們能一起在家中參與運動課程，藉由病友的實際線上回饋意見以適時調整。這跟我們目前臨床上只是單純衛教飲食比較不一樣，當然營養師對於運動的專業領域相對薄弱，未來如果要發展癒後並偶運動推廣課程，需要跨領域商請物理治療師或者專業教練設計一系列合適的課程，不僅僅是飲食，而是整體生活型態上的改變，才能真正達到提升生活品質的效果。整體而言，積極飲食調整、運動建議對於癌症手術後病人的體組成影響，不單單只影響到術後的生活品質，其實也與治療期間的副作用及存活率等息息相關。

整個研討會的心情很興奮，一開始看到國際間的成果，覺得自己好像落後很多，但仔細了解內容之後，發現其實自己看過的文獻或是目前的已在努力著手的方向都與國際一樣，講者與營養相關的內容原來都是自己看過的，此時才備感欣慰，原來平時的耕耘與努力的方向沒有偏離，而且需要更加把勁的把想法付諸行動！我們在臨床營養的努力與表現是夠國際水準的，惟一較弱的是在國際學術活動，可能在英語口語表達的流暢度可以再加強。

未來可朝向增加癌症與運動營養相關門診及其他跨領域合作，多職類跨領域的合作不但讓更多人重視營養，也讓病人受惠更多；另外因應疫情緣故，未來可思考如何利用科技進行虛擬營養教育、介入等等，以幫助更多病人。