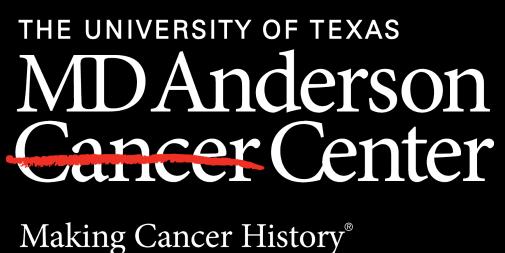


Frequency of Malnutrition and Anorexia-Cachexia Syndrome Patients with Advanced Cancer Evaluated in an Outpatient Supportive Care Clinic

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# BACKGROUND

Patients with advanced cancer are at risk for malnutrition and the development of anorexia-cachexia syndrome, which is often under-treated. The objective of our study was to determine the frequency of these conditions in patients with advanced cancer who were evaluated in an outpatient ambulatory Supportive Care Clinic.

### **METHODS**

Patients with advanced cancer seen in SCC were prospectively enrolled to complete a cross-sectional one-time survey. We collected patient demographics, weight history and height, cancer history, the Functional Assessment of Anorexia Therapy – Anorexia/Cachexia Subscale (FAACT-A/CS) questionnaire, Edmonton Symptom Assessment Scale (ESAS), the Patient Generated Subjective Global Assessment – short form (PG-SGA SF), and a Body Image Scale (BIS) questionnaire. Malnutrition was indicated by a PG-SGA cut-off of  $\geq$  5, and loss of appetite, anorexia, was defined as either ESAS  $\geq$  3 or FAACT-ACS  $\leq$  37.

### RESULTS

165 Patients with cancer were approached 100 (61%) completed the prospective survey.

Average (SD) age was 61.6 years old (11.5)

Majority were Female Gender (52%), Caucasian (75%), Married (80%)

Most common cancers - Gastrointestinal (22%) & Genitourinary (21%).

At the time of the survey

- 14% of patients were noted to have a BMI < 20</li>
- 60% of patients reported anorexia (ESAS ≥ 3)
- 53% patients screened positive for the FAACT-A/CS (≤ 37)
- 69% were malnourished (PGSGA ≥ 5)
- 55% had body image dissatisfaction (BIS ≥ 4).

Documented weight loss of >10% in the medical records was recorded in 59% of patients with an average (SD) of -12.8% (15.3). Patient self-reported weight loss of > 5% over 6 months and > 10% over a lifetime was noted in 56% and 62% of the patients, respectively.

# Consort Diagram

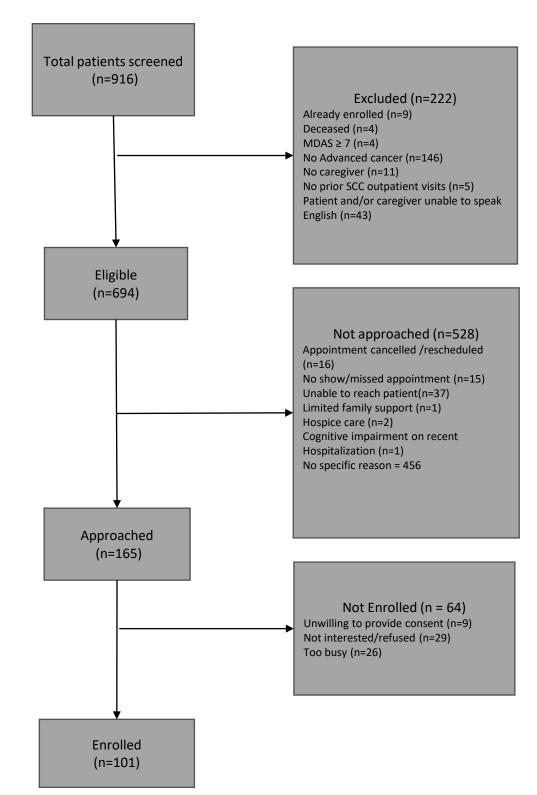


Table 1. Characteristics of Patients with Advanced Cancer who Completed Nutrition and Cachexia Survey

Patient Characteristics	N=100 (%)		
Age (mean in years (SD))	61.6 (11.5)		
BMI (SD)	26.5 (6.35)		
Cancer Type			
Breast	12 (12)		
Gastrointestinal	22 (22)		
Gynecological	8 (8)		
Head & Neck	8 (8)		
Hematological	10 (10)		
Thoracic	9 (9)		
Other	7 (7)		
Unknown Primary	3 (3)		
Cancer Stage			
Metastatic	83 (83)		
Locally Advanced	4 (4)		
Recurrent/Relapsed	12 (13)		
Gender			
Female	52 (52)		
Ethnicity			
White	75 (75)		
Hispanic/Latino	11 (11)		
African American	10 (10)		
Asian/Pacific Islander	4 (4)		
Marital Status			
Married	80 (80)		
Divorced or Widowed	12 (12)		
Single or Never Married	8 (8)		
Education			
College Graduate or Some College	54 (54)		
Graduate or Professional or Technical School	21 (21)		
High School/GED	18 (18)		
Some High School	7 (7)		
Performance Status			
1	70 (70)		
2	18 (18)		
3	12 (12)		

# **RESULTS**

Table 2. Frequency of Malnutrition and Cancer Cachexia in Ambulatory Patients with Cancer

Anorexia Cachexia Assessments	n=100 (%)	Average score (SD)	
ESPEN Cachexia Criteria			
Weight loss >10% over 6 months	58 (58)	-12.8% (15.3)	
Patient Self-reported weight loss			
Weight loss >5% over 6 months	53 (53)	-9.0 (9.6)	
Weight loss >10% over lifetime	60 (60)	-13.6 (31.1)	
Frequency of Malnutrition			
PG-SGA≥5	69 (69)	7.26 (4.5)	
Frequency of Anorexia			
FAACT-A/CS ≤ 37	53 (53)	35.9 (9.2)	
ESAS ≥ 3	60 (60)	3.6 (3.0)	
<b>Body Image Dissatisfaction</b>			
Body Image Scale ≥ 4	54 (54)	6.1 (5.7)	

### RESULTS

Table 3 Parenteral Nutrition Survey of Patients with Advanced Cancer (N=100)

<b>Strongly Disagree</b>	Disagree	Neither Agree Or Disagree	Agree	Strongly Agree	No respo
Do Not Wish to Recei	ve Tube Feeding Eve	n If I cannot Eat Enou	gh		
2	40	44	11	1	2
think the Parenteral I	Nutrition & Hydratic	on are Essential If I Ca	nnot Eat Enough		
4	54	14	22	3	3
think that Parenteral	Hydration is Essenti	al at Least If I Cannot	Eat Enough		
3	59	11	22	2	3
Think That Medical S	Staff Needs to Provid	e Appropriate Nutritio	nal Treatment		
5	54	26	12	2	1
Would Like to Leave	the Decision About N	Nutritional Treatment t	o my Attending Physic	cian	
1	42	33	21	0	3
Would Like to Decide	on Nutritional Trea	tment Myself			
10	51	14	19	4	2
Think that my Family	Members' Opinions	s about Nutritional Tre	atment are Very Impo	rtant	
15	45	9	26	4	1
Don Not Wish to Reco	eive Parenteral Nutri	ition and Hydration Ev	en if I Cannot Eat En	ough	
0	39	54	6	0	1
Would Like to Leave	the Decision about N	utritional Treatment to	o My Family Members	1	
1	35	37	24	2	1
Think that I and My	Family Members Dis	agree about Nutritiona	al Treatment		
1	33	55	11	0	0

#### CONCLUSION

- Patients with Advanced Cancer seen in an outpatient SCC are at high risk of Anorexia-Cachexia Syndrome
- 70% of Patients with Advanced Cancer were at Risk for Malnutrition
- Roughly 60% Experience Complications of Weight Loss (Cachexia)
- 54% of Patients with Cancer reported Body Image Dissatisfaction
- Routine screening for malnutrition and Nutritional Counseling should be Incorporated into All Supportive Care Encounters
- Patients with Advanced Cancer have Diverse Preferences for Parenteral
   Nutrition or Hydration

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