

Malnutrition Evaluation in Acute Care Palliative Medicine

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Introduction

- Common & Under-Diagnosed
- Malnutrition Definition?
- Dietitian Role?
- Nutrition Assessment (NA)
- Cleveland Clinic Criteria

Aims

1. Identify Prevalence & Severity
2. Examine MD & RD Agreement
3. Malnutrition & Prognosis

Methods

- Electronic Medical Record
- Retrospective
- Cancer PMU Inpatients
- First NA by RD
- Consecutive (N=182)
- Cleveland Clinic Criteria

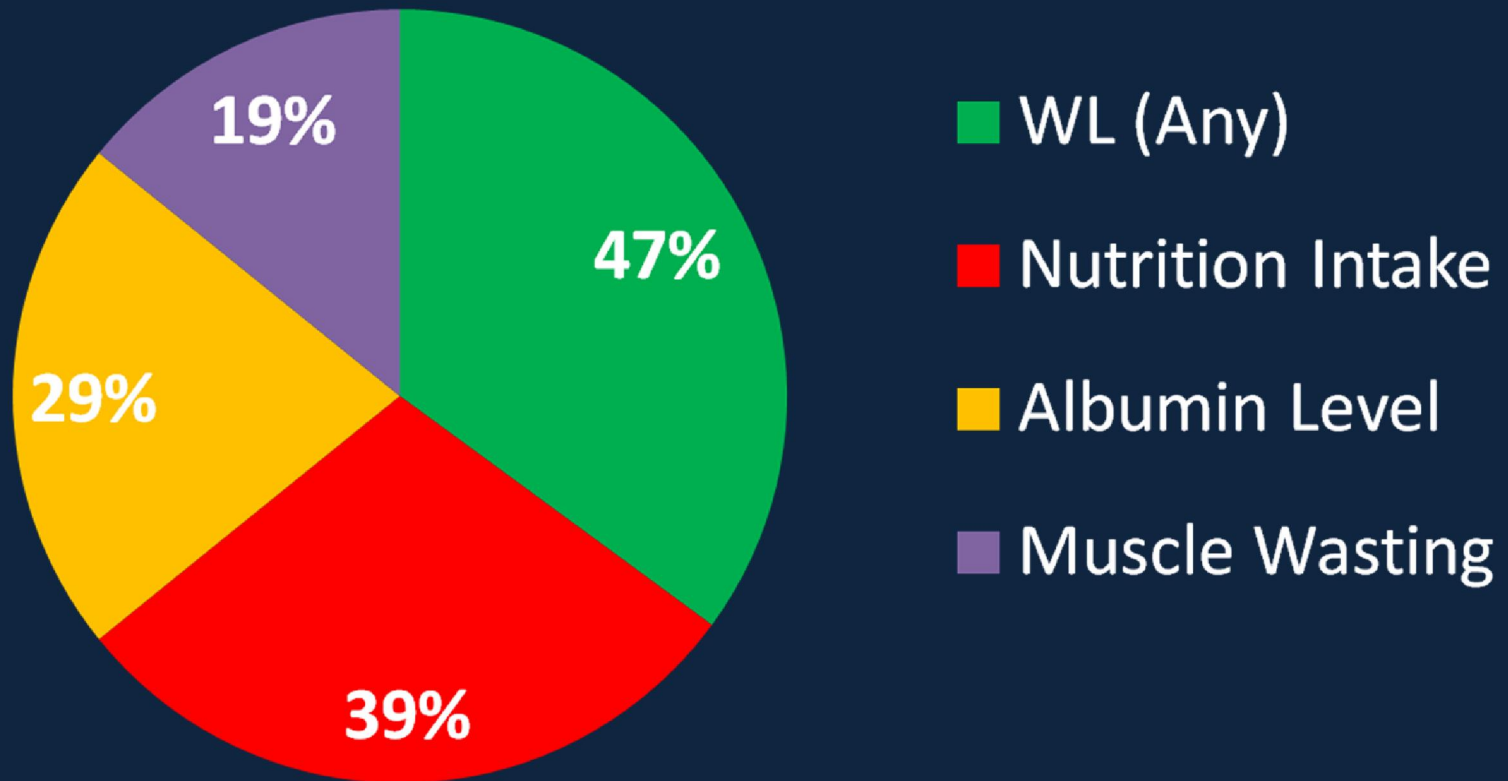
Cleveland Clinic Criteria (≥ 2)

1. Unintentional Weight Loss (WL)
2. Body Mass Index (BMI)
3. Muscle Wasting on Exam
4. Nutrient Intake (kcal/day)
5. Wounds
6. Biochemistry
 - \downarrow albumin
 - pre-albumin
 - \downarrow transferrin

Demographic Data

- Median Age = 61 yrs (range 61-96)
- Female = 51%
- Caucasian = 81%
- Cancer
 - Primary = Lung 21%; GI 16%; GU 15%
 - Metastases (1-2 Known) = 60%

RD Prevalence Criteria (N=182)



RD Assessment

- 6 Criteria
- Prevalence = 69%
- 2/3 = Moderate-Severe

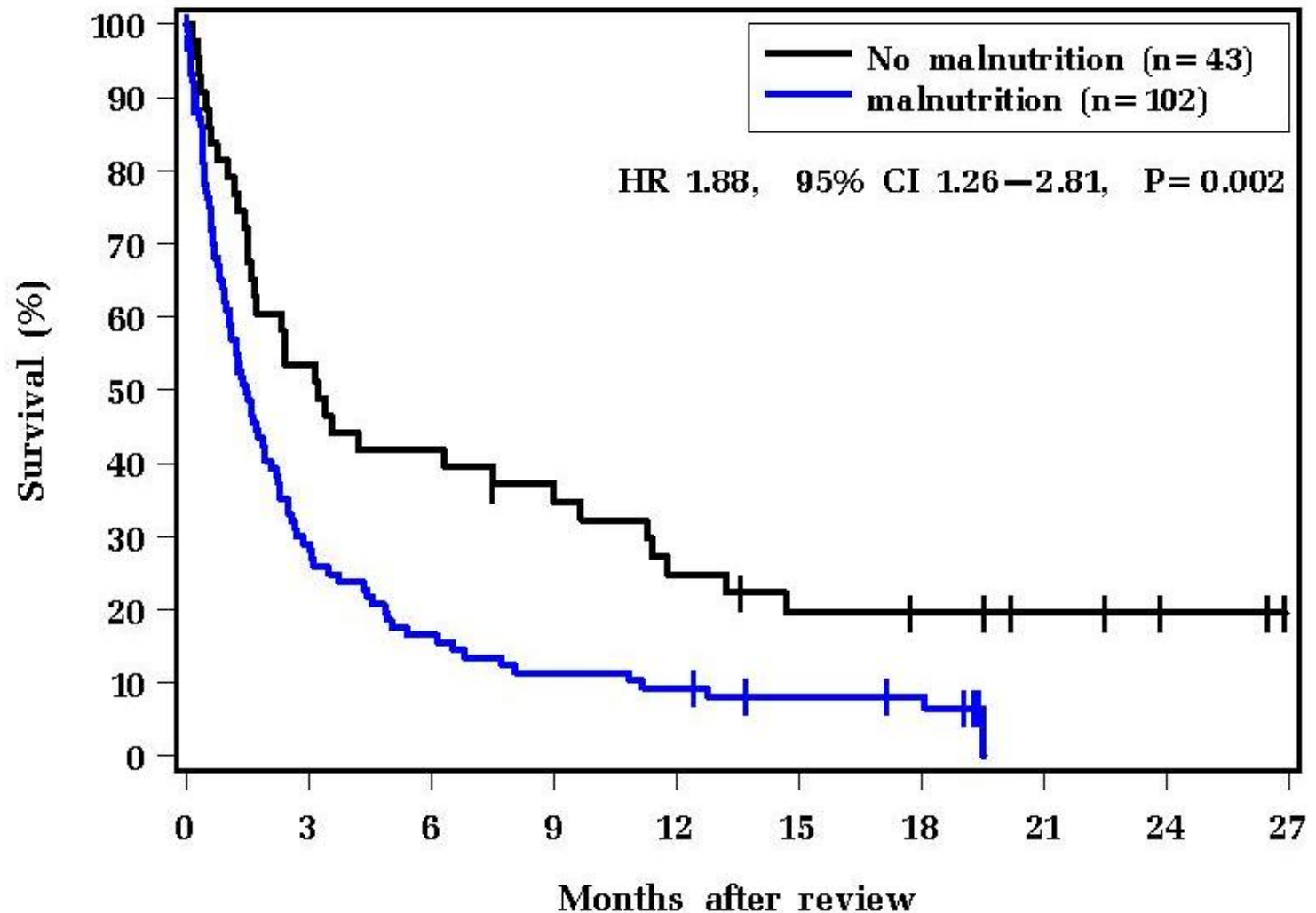
MD Assessment (N=91)

- Clinical Judgment (No Criteria)
- Recorded = 50%
- Prevalence = 77%

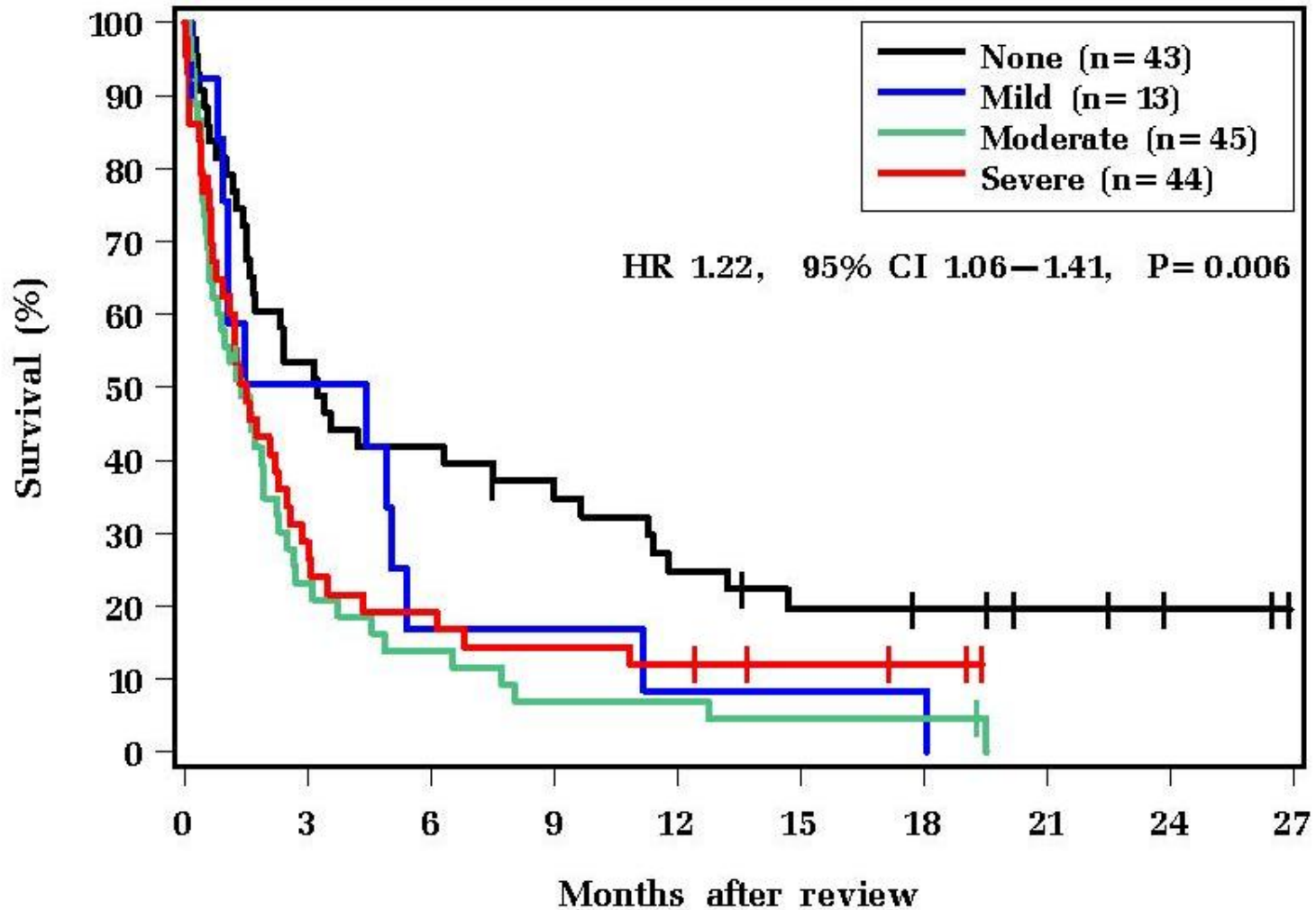
RD & MD Agreed

- Prevalence (N=77)
 - McNemar's Test
 - 83% (95% CI 73-91)
- Severity (N=71)
 - Spearman Correlation
 - $r=0.7$ ($p<0.001$)

Prevalence & Prognosis (RD)



Severity & Prognosis (RD)



Conclusions

1. 69% Malnutrition (RD)
2. 61% Moderate-Severe (RD)
3. Any Malnutrition → Worse Prognosis
4. MD Under-Recorded Nutrition
5. MD & RD; Agreed Prevalence & Severity
6. Serum Albumin Not Useful
7. Assessment Variability; CC Criteria Revised

Investigators

- Aynur Aktas MD
- Marianne Fischer RD
- Lisa Rybicki BS

Criteria	Mild	Moderate	Severe
Unintentional Weight Loss		1-2% 1 week 5% 1 month 7.5% 3 months 10% 6 months	>2% 1 week >5% 1 month >7.5% 3 months >10% 6 months
BMI	17.0-19.0 kg/m ²	16.0-16.9 kg/m ²	<16.0 kg/m ²
Visual Muscle Wasting	No	Yes	Yes
Wounds	Stage 1	Stage 2	Stage 3,4,or unstageable, multiple stages of lesser degree and/or non-healing wounds
Nutrient Intake	Inadequate intake <50% for >7days	Inadequate intake <50% for >7days	Inadequate intake <25% for >7days
Lab Values:			
Pre-Albumin	10-16 mg/dl	5-9 mg/dl	<5 mg/dl
Albumin	3.0-3.4 mg/dl	2.4-2.9 mg/dl	<2.5 mg/dl
Transferrin	150-175 mg/dl	100-149 mg/dl	<100 mg/dl
Number of Criteria Recommended to Diagnosis Malnutrition	2 bolded criteria	2 bolded criteria	2 bolded criteria

RD Assessment

- Malnutrition = 69% (N=145)
 1. WL: 72% (N=132)
 2. BMI: ↓14% (N=162)
 3. Muscle Wasting: 53% (N=62)
 4. Kcal/day: ↓64% (N=117)
 5. Wounds: 7% (N=70)
 6. Albumin: ↓31% (N=156)