Clinical Guide to Prevent and Manage Malnutrition in Long-Term Care

For Nursing Staff and Dietary Staff and Dietitians (Evaluate, Document and Treat)

The American Dietetic Association supports the Clinical Guide to Prevent and Manage Malnutrition in Long-Term Care. Representatives from the American Dietetic Association were instrumental in its development.

These Guidelines were developed by the Council for Nutrition convened by Programs in Medicine under a grant from Bristol-Myers Squibb. A Special Committee of The Gerontological Society of America (GSA) served as critical reviewers and provided input and modification of the final Guidelines. While GSA does not endorse specific clinical measures, we support the principles underlying these Guidelines and their potential to improve nutrition in the nursing home.

### Trigger Conditions

| Involuntary 5% weight loss in 30 days or 10% in 180 days or less  
| Or  
| BMI ≤ 21  
| Or  
| Resident leaves 25% or more of food uneaten at two thirds of meals  
| (Assess over 7 days, based on 2000 cal/day)  

Put on weekly weight monitoring program/  
Proceed with documentation utilizing Nursing Nutritional Checklist

Quality indicator conditions:  
- Fecal impactions, Infection (UTI, URI, pneumonia, GI)  
- Tube feeding, decline in ADLs or pressure ulcer on low risk resident

Check hydration status  
minimum 1500 cc fluid/day unless contraindicated  
(For tube feeding patients, approximately 75% of the total tube feeding volume should be considered free fluid)

Inform physician/dietitian

### Checklist for nurse to provide physician/dietitian:

- Temperature  
- Constipation  
- Fecal impaction  
- Drug list  
- Mood/behavior  
- Food/fluid intake  
- Vomiting/nausea  
- Indigestion  
- Skin condition  
- Swallowing problem

- Appetite assessment  
- Infection - UTI, URI, GI  
- Pain  
- Albumin < 3.4 g/dL  
- Cholesterol < 160 mg/dL  
- Hgb<12 g/dL  
- Serum transferrin<180*  

* Included in MDS

### Physician considerations:

- Albumin  
- Complete blood count  
- Blood urea nitrogen  
- Creatine  
- Hemoglobin  
- Hematocrit  
- Serum transferrin  
- Cholesterol  
- Consultation by dietitian  
- Consult Clinical Guide for Physicians, Pharmacists, and Dietitians

### Suggestions for family:

- Visit at meal time  
- Help feed  
- Discuss alternate food sources  
- Review food preferences  
- Recommend favorite foods or comfort foods  
- Discuss quality of life issues and treatment goals

### Food considerations:

- Stop therapeutic diet  
- Food preferences (e.g., ethnic)  
- Consistency changes based on assessed needs  
- Offer meal substitutes  
- Snacks (between meals and HS)  
- Medications not given at meal time  
- Supplements not given at meal time  
- Food served at proper temperature  
- Food palatability (consider taste enhancers)  
- Encourage family involvement in feeding  
- Appetite assessment

### Environmental considerations:

- Surroundings quiet and calm, comfortable  
- Positive dining room atmosphere  
- Well lighted  
- Caregivers are friendly and polite  
- Residents are happy with the meals and meal service  
- Staff directs conversation to resident at meal time  
- Dining room service not rushed  
- Assistance encouraged  
- Prompt service and assistance  
- Compatible companions  

### Other:

- Taste/sensory changes  
- Ill-fitting dentures, missing teeth  
- Motor agitation, tremors, wandering

### Meal time assistance, restorative dining program

- Swallowing evaluation/food consistency change, thickened liquids, special feeding program, enteral/parenteral feeding

While presented for simplicity as a linear guide in two parts, many of the suggestions can be done simultaneously, and the order in which this approach is taken can be varied dependent on individual resident needs.
**Nursing Nutritional Checklist (for use in Care Planning)**

The American Dietetic Association supports the Nursing Nutritional Checklist (for use in Care Planning). Representatives from the American Dietetic Association were instrumental in its development.

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Representatives from the American Dietetic Association were instrumental in its development.

**Problem List (check all that apply)**

- 1. Patient has ≥5% involuntary weight loss in 30 days?
- 2. Patient has ≥10% involuntary weight loss in 180 days or less.
- 3. BMI is ≤ 21. (703 x weight in lbs/height in inches² or weight in kilograms/height in meters²)
- 4. Resident leaves 25% or more food on tray? (in last 7 days)
- 5. Quality Indicators — Does patient have:
  - A. Fecal impaction in last 7 days
  - B. Infection (UTI, URI, Pneumonia, GI) in last 7 days
  - C. Tube feeding
  - D. Functional ADL decline
  - E. Development of pressure ulcer in low risk patient
- 6. Patient takes in ≤1500cc fluid/day for the last 7 days? Is patient on fluid restriction?
- 7. Available labwork completed in the last 30 days:
  - Hgb _____________ Albumin _____________
  - Hct _____________ Cholesterol _____________
  - Sodium _____________ Urine WBC _____________
  - Potassium _____________ Spec. Gravity _____________
  - Glucose _____________ Leuk. Esterase _____________
  - BUN _____________ Other _____________
  - Creatinine _____________
- 8. Nursing assessment of physical/psychological problems
  - A. Skin (pressure ulcers and skin tears)
  - B. Presence of fever (2º above baseline)
  - C. Presence of diarrhea
  - D. Presence of constipation
  - E. Takes drugs other than multivitamins/minerals
  - F. Symptoms of depression/anxiety
  - G. Loss of usual appetite
  - H. Presence of nausea/vomiting
  - I. Presence of dysphagia/choking
  - J. Ill-fitting dentures, missing teeth, periodontal disease
- 9. Not satisfied with food currently offered (for example, ethnic preferences)
- 10. Patient needs meal time assistance
- 11. Patient has motor agitation, tremors, or wanders
- 12. Presence of environmental distractions or meal time environment concerns
- 13. Inadequate lighting in the dining room
- 14. Patient needs 30-60 minutes to eat
- 15. Patient is unable to tolerate current food consistency
- 16. Supplements are given at meal time
- 17. Medications are given at meal time
- 18. Impaired visual acuity
- 19. Impaired hearing
- 20. Patient has a decline in taste and smell

**Suggested Action Plan (check when completed)**

- 1. Monitor weight weekly. Continue to step #5 on problem list
- 2. Monitor fluid intake
- 3. Notify physician of values
- 4. A. Implement bowel program
  - B. Get physician order for U/A
  - C. Contact dietitian for assessment
  - D. Consider OT/PT assessment
  - E. Implement skin program
- 5. Develop systematic plan to ensure adequate fluid intake (e.g., 300 mL with meals and 240 mL between meals)
- 6. Consider training staff to provide meal time assistance
- 7. Stop therapeutic diets and provide preferred foods/food substitutions
- 8. A. Implement skin program
  - B. Implement facility protocol
  - C. Implement facility protocol
  - D. Implement facility protocol
  - E. Contact pharmacy consultant for drug review
  - F. Evaluate for depression/anxiety (short geriatric mini depression scale)
  - G. Implement care plan to increase appetite
  - H. Implement facility protocol
  - I. Contact dietitian for evaluation
  - J. Contact dentist or dental technician
- 9. Offer finger foods
- 10. Minimize environmental distractions
  - Provide self-help feeding devices
  - Offer finger foods
- 11. Evaluate location in dining room
- 12. Minimize environmental distractions
  - Provide compatible companions
- 13. Consider OT evaluation
  - Provide meal time assistance
  - Provide self-help feeding devices
- 14. Implement dining program, e.g. special area to eat for impaired residents or two meal time sessions
- 15. Contact dietitian for texture screen
- 16. Give liquid supplements in a pattern that optimizes nutrient intake
- 17. Contact pharmacist for appropriate administration time
- 18. Assure resident is wearing clean glasses at meal time
  - Provide meal time assistance (see #10)
- 19. Ensure that hearing aid is in place and working at meal time
- 20. Season foods
  - Serve food at proper temperature

*When problem list is completed, contact physician, dietitian and pharmacist as appropriate with suggested action plan.*

Completed by: ____________________________ Date: ____________________________

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### Clinical Guide to Prevent and Manage Malnutrition in Long-Term Care

#### FOR PHYSICIANS, PHARMACISTS, AND DIETITIANS (EVALUATE, DOCUMENT AND TREAT)

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#### Trigger Conditions

<table>
<thead>
<tr>
<th>Involuntary 5% weight loss in 30 days or 10% in 180 days or less</th>
<th>Consider quality indicator conditions for cause or related conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>or BMI ≤ 21</td>
<td>Consider dehydration status minimum 1500cc fluid/day (Unless contraindicated)</td>
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<td>Resident leaves 25% or more of food uneaten at two thirds of meals (Assess over 7 days, based on 2000 cal/day)</td>
<td>If acute decrease in food intake, consider delirium, acute illness and/or pain</td>
</tr>
<tr>
<td>Put on weekly weight monitoring program</td>
<td>Consider laboratory data</td>
</tr>
<tr>
<td>Assess laboratory data</td>
<td>Consider quality indicator conditions for cause or related conditions</td>
</tr>
<tr>
<td>Consider quality indicator conditions for cause or related conditions</td>
<td>Consider hydration status minimum 1500cc fluid/day (Unless contraindicated)</td>
</tr>
<tr>
<td>Consider reversible causes (MEALS ON WHEELS)</td>
<td>If acute decrease in food intake, consider delirium, acute illness and/or pain</td>
</tr>
<tr>
<td>Consider irreversible causes</td>
<td>Geriatric Depression Scale (see Appendixes A and B)</td>
</tr>
<tr>
<td>Consider treatable causes (MEALS ON WHEELS)</td>
<td>Review drugs</td>
</tr>
<tr>
<td>Consider osteogenic drugs (appetite stimulants)</td>
<td>Stop drugs that cause anorexia or substitute where possible</td>
</tr>
<tr>
<td>Consider alternate feeding routes (such as NG, PEG, PPN)</td>
<td>Treating cause</td>
</tr>
</tbody>
</table>

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#### Reversible Causes of Protein-Energy Malnutrition in Nursing Homes: The “MEALS ON WHEELS” Mnemonic

<table>
<thead>
<tr>
<th>Medications (e.g. digoxin, theophylline, antipsychotics)</th>
<th>Treat cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional problems (depression)</td>
<td></td>
</tr>
<tr>
<td>Norexia tardive (nervosa)/Alcoholism</td>
<td></td>
</tr>
<tr>
<td>Late-life paranoia</td>
<td></td>
</tr>
<tr>
<td>Swallowing disorders</td>
<td></td>
</tr>
<tr>
<td>Oral problems</td>
<td></td>
</tr>
<tr>
<td>Nosocomial infections (tuberculosis, Helicobacter pylori, Clostridium difficile)</td>
<td></td>
</tr>
<tr>
<td>Wandering and other dementia-related behaviors</td>
<td></td>
</tr>
<tr>
<td>Hyperthyroidism/hypercalcemia/hypoarrenalism</td>
<td></td>
</tr>
<tr>
<td>Enteric problems (malabsorption)</td>
<td></td>
</tr>
<tr>
<td>Stealing problems</td>
<td></td>
</tr>
<tr>
<td>Low-salt, low-cholesterol diets</td>
<td></td>
</tr>
<tr>
<td>Stones (cholelithiasis)</td>
<td></td>
</tr>
</tbody>
</table>


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#### Consider:

- Serum albumin < 3.4 g/dL
- Cholesterol < 160 mg/dL
- Hgb < 12 g/dL
- Serum transferrin < 180* (Included in MDS)
- Fecal impactions
- Infection (UTI, URI, pneumonia, GI)
- Tube feeding
- Decline in ADL’s or pressure ulcer on low risk resident

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#### Consider:

- Improving appetite or giving acceptable nutrition can be helpful to the resident and family

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#### Consider:

- Put on weekly weight monitoring program
- Assess laboratory data
- Consider quality indicator conditions for cause or related conditions
- Consider hydration status minimum 1500cc fluid/day (Unless contraindicated)
- If acute decrease in food intake, consider delirium, acute illness and/or pain
- Geriatric Depression Scale (see Appendixes A and B)
- Consider laboratory data
- Consider reversible causes (MEALS ON WHEELS)
- Consider irreversible causes
- Consider alternate feeding routes (such as NG, PEG, PPN)
- Consider other treatment options, e.g. hospitalize or palliative care

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#### Consider:

- Cancer or other terminal illness*

*Improving appetite or giving acceptable nutrition can be helpful to the resident and family

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*This is a tool to assist in compliance. This is not an endorsement of the HCFA mandated criteria. It should be noted that because malnutrition in long-term care is multifactorial, any treatment that is initiated should be monitored for efficacy, and nursing interventions should proceed simultaneously with medical interventions.

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### Appendix A

**Geriatric Depression Scale (Short Form)**

Answers indicating depression are highlighted. Each bold answer counts as 1 point; scores greater than 5 indicate probable depression.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you basically satisfied with your life?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>2. Have you dropped many of your activities and interests?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>3. Do you feel that your life is empty?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>4. Do you often get bored?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>5. Are you in good spirits most of the time?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>6. Do you feel happy most of the time?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>7. Do you feel that something bad is going to happen to you?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>8. Do you feel pretty worthless the way you are now?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>9. Do you prefer to stay at home, rather than going out and doing new things?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>10. Do you feel you have more problems with memory than most?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>11. Do you think it is wonderful to be alive?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>12. Do you feel you have more problems with memory than most?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>13. Do you feel full of energy?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>14. Do you feel that your situation is hopeless?</td>
<td>yes / no</td>
<td></td>
</tr>
<tr>
<td>15. Do you think that most people are better off than you are?</td>
<td>yes / no</td>
<td></td>
</tr>
</tbody>
</table>


### Appendix B

**Cornell Scale for Depression in Dementia**

Rating should be based on symptoms and signs occurring during the week before interview. No score should be given if symptoms result from physical disability or illness.

**Scoring system:**

- a = Unable to evaluate
- 0 = Absent
- 1 = Mild to intermittent
- 2 = Severe

<table>
<thead>
<tr>
<th>A. Mood-Related Signs</th>
<th>a 0 1 2</th>
<th>1. Anxiety: anxious expression, rumination, worrying</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>2. Sadness: sad expression, sad voice, tearfulness</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>3. Lack of reaction to present events</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>4. Irritability: annoyed, short tempered</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>5. Agitation: restlessness, hand wringing, hair pulling</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>6. Retardation: slow movements, slow speech, slow reactions</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>7. Multiple physical complaints (score 0 if gastrointestinal symptoms only)</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>8. Loss of interest: less involved in usual activities (score only if change occurred acutely, i.e., in less than one month)</td>
</tr>
<tr>
<td>B. Behavioral Disturbance</td>
<td>a 0 1 2</td>
<td>9. Appetite loss: eating less than usual</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>10. Weight loss (score 2 if greater than 5 pounds in one month)</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>11. Lack of energy: fatigues easily, unable to sustain activities</td>
</tr>
<tr>
<td>C. Physical Signs</td>
<td>a 0 1 2</td>
<td>12. Diurnal variation of mood: symptoms worse in the morning</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>13. Difficulty falling asleep: later than usual for this individual</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>14. Multiple awakening during sleep</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>15. Early morning awakening: earlier than usual for this individual</td>
</tr>
<tr>
<td>D. Cyclic Functions</td>
<td>a 0 1 2</td>
<td>16. Suicidal: feels life is not worth living</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>17. Poor self-esteem: self-blame, self-depreciation, feeling of failure</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>18. Pessimism: anticipation of the worst</td>
</tr>
<tr>
<td></td>
<td>a 0 1 2</td>
<td>19. Mood congruent delusions: delusions of poverty, illness or loss</td>
</tr>
</tbody>
</table>

SCORE ______ Score greater than 12 is Probable Depression