# 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 ADL's 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

Food/environmental considerations

Needs feeding assistance

Meal time assistance, restorative dining program

Dysphagia/aspiration

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

Caloric-dense foods
Exercise program for appetite stimulation

Between-meal liquid calorically dense supplements

Consider other treatment options, e.g. hospitalize or palliative care

Document reason

**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

*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.*

**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
- Creatinine
- Hemoglobin
- Hematocrit
- Serum transferrin
- Cholesterol
- Consultation by dietitian
- Consult Clinical Guide for Physicians, Pharmacists, and Dietitians

**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

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

**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

*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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| Problem List (check all that apply) | Suggested Action Plan (check when completed) |
|---|---|
| ○ 1. Patient has ≥ 5% involuntary weight loss in 30 days? | ○ 1-4 . Monitor weight weekly.<br>Continue to step #5 on problem list |
| ○ 2. Patient has ≥10% involuntary weight loss in 180 days or less. | |
| ○ 3. BMI is ≤ 21. (703 x weight in lbs/height in inches$^2$ **or** weight in kilograms/height in meters$^2$) | |
| ○ 4. Resident leaves 25% or more food on tray? (in last 7 days) | |
| 5. Quality Indicators — Does patient have: | 5. |
| ○ A. Fecal impaction in last 7 days | ○ A. Implement bowel program |
| ○ B. Infection (UTI, URI, Pneumonia, GI) in last 7 days | ○ B. Get physician order for U/A |
| ○ C. Tube feeding | ○ C. Contact dietitian for assessment |
| ○ D. Functional ADL decline | ○ D. Consider OT/PT assessment |
| ○ E. Development of pressure ulcer in low risk patient | ○ E. Implement skin program |
| ○ 6. Patient takes in ≤1500cc fluid/day for the last 7 days? Is patient on fluid restriction? | ○ 6. Develop systematic plan to ensure adequate fluid intake (e.g., 300 mL with meals and 240 mL between meals) |
| ○ 7. Available labwork completed in the last 30 days:<br>Hgb _____ Albumin_____<br>Hct _____ Cholesterol _____<br>Serum WBC _____ U/A:<br>Sodium _____ Urine WBC_____<br>Potassium _____ Spec. Gravity _____<br>Glucose _____ Leuk. Esterase _____<br>BUN _____ Other_____<br>Creatinine _____ | ○ 7. Notify physician of values |
| 8. Nursing assessment of physical/psychological problems | 8. |
| ○ A. Skin (pressure ulcers and skin tears) | ○ A. Implement skin program |
| ○ B. Presence of fever (2º above baseline) | ○ B. Implement facility protocol |
| ○ C. Presence of diarrhea | ○ C. Implement facility protocol |
| ○ D. Presence of constipation | ○ D. Implement facility protocol |
| ○ E. Takes drugs other than multivitamins/minerals | ○ E. Contact pharmacy consultant for drug review |
| ○ F. Symptoms of depression/anxiety | ○ F. Evaluate for depression/anxiety (short geriatric mini depression scale) |
| ○ G. Loss of usual appetite | ○ G. Implement care plan to increase appetite |
| ○ H. Presence of nausea/vomiting | ○ H. Implement facility protocol |
| ○ I. Presence of dysphagia/choking | ○ I. Contact dietitian for evaluation |
| ○ J. Ill-fitting dentures, missing teeth, periodontal disease | ○ J. Contact dentist or dental technician |
| ○ 9. Not satisfied with food currently offered (for example, ethnic preferences) | ○ 9. Stop therapeutic diets and provide preferred foods/food substitutions |
| ○ 10. Patient needs meal time assistance | ○ 10. Provide timely, polite assistance during dining<br>○ Provide tray set up<br>○ Provide partial assistance/supervision (evaluate resident/staff ratio and supervision by licensed professional staff)<br>○ Provide total assistance (consider resident/staff ratio and supervision by licensed professional staff)<br>○ Consider training staff to provide meal time assistance |
| ○ 11. Patient has motor agitation, tremors, or wanders | ○ 11. Consider OT evaluation<br>○ Provide meal time assistance<br>○ Provide self-help feeding devices<br>○ Offer finger foods |
| ○ 12. Presence of environmental distractions or meal time environment concerns | ○ 12. Minimize environmental distractions<br>○ Provide compatible companions |
| ○ 13. Inadequate lighting in the dining room | ○ 13. Evaluate location in dining room |
| ○ 14. Patient needs 30–60 minutes to eat | ○ 14. Implement dining program, e.g. special area to eat for impaired residents or two meal time sessions |
| ○ 15. Patient is unable to tolerate current food consistency | ○ 15. Contact dietitian for texture screen |
| ○ 16. Supplements are given at meal time | ○ 16. Give liquid supplements in a pattern that optimizes nutrient intake |
| ○ 17. Medications are given at meal time | ○ 17. Contact pharmacist for appropriate administration time |
| ○ 18. Impaired visual acuity | ○ 18. Assure resident is wearing clean glasses at meal time<br>○ Provide meal time assistance (see #10) |
| ○ 19. Impaired hearing | ○ 19. Ensure that hearing aid is in place and working at meal time |
| ○ 20. Patient has a decline in taste and smell | ○ 20. Season foods<br>○ Serve food at proper temperature |

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

Completed by: _____ Date: _____

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

## For Physicians, Pharmacists, and Dietitians (Evaluate, Document and Treat)

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Put on weekly weight monitoring program

Assess laboratory data

Consider:
- Serum albumin <3.4g/dL
- Cholesterol<160 mg/dL
- Hgb<12 g/dL
- Serum transferrin<180*

* Included in MDS

→ Evalute and treat as appropriate

Consider quality indicator conditions for cause or related conditions

- Fecal impactions
- Infection (UTI, URI, pneumonia, GI)
- Tube Feeding
- Decline in ADL's or pressure ulcer on low risk resident

→ Treat cause

Consider hydration status
minimum 1500cc fluid/day
(Unless contraindicated)

If acute decrease in food intake, consider delirium, acute illness and/or pain → Treat cause

Geriatric Depression Scale (see Appendixes A and B) → Treat depression

Review drugs → Stop drugs that cause anorexia or substitute where possible

Consider treatable causes
(MEALS ON WHEELS)

**Reversible Causes of Protein-Energy Malnutrition in Nursing Homes: The "MEALS ON WHEELS" Mnemonic***

**M** edications (eg, digoxin, theophylline, antipsychotics)
**E** motional problems (depression)
**A** norexia tardive (nervosa)/Alcoholism
**L** ate-life paranoia
**S** wallowing disorders

**O** ral problems
**N** osocomial infections (tuberculosis, Helicobacter pylori, Clostridium difficile)

**W** andering and other dementia-related behaviors
**H** yperthyroidism/hypercalcemia/hypoadrenalism
**E** nteric problems (malabsorption)
**E** ating problems
**L** ow-salt, low-cholesterol diets
**S** tones (cholelithiasis)

→ Treat cause

*Source: Morley JE, Silver AJ. Nutritional issues in nursing home care. Ann Intern Med 1995; 123:850-859.

Consider orexigenic drugs
(appetite stimulants)

Consider irreversible causes

Cancer or other terminal illness* → Advance directives

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

Consider alternate feeding routes
(such as NG, PEG, PPN)

Consider other treatment options, e.g. hospitalize or palliative care → Document reason

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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.

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

Reprinted with permission from: Sheikh JI, Yesavage JA. Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist* 1986;5:165.

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## 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

**A. Mood-Related Signs**

| | | | | | |
|---|---|---|---|---|---|
| a | 0 | 1 | 2 | 1. | Anxiety: anxious expression, rumination, worrying |
| a | 0 | 1 | 2 | 2. | Sadness: sad expression, sad voice, tearfulness |
| a | 0 | 1 | 2 | 3. | Lack of reaction to present events |
| a | 0 | 1 | 2 | 4. | Irritability: annoyed, short tempered |

**B. Behavioral Disturbance**

| | | | | | |
|---|---|---|---|---|---|
| a | 0 | 1 | 2 | 5. | Agitation: restlessness, hand wringing, hair pulling |
| a | 0 | 1 | 2 | 6. | Retardation: slow movements, slow speech, slow reactions |
| a | 0 | 1 | 2 | 7. | Multiple physical complaints (score 0 if gastrointestinal symptoms only) |
| a | 0 | 1 | 2 | 8. | Loss of interest: less involved in usual activities (score only if change occurred acutely, i.e., in less than one month) |

**C. Physical Signs**

| | | | | | |
|---|---|---|---|---|---|
| a | 0 | 1 | 2 | 9. | Appetite loss: eating less than usual |
| a | 0 | 1 | 2 | 10. | Weight loss (score 2 if greater than 5 pounds in one month) |
| a | 0 | 1 | 2 | 11. | Lack of energy: fatigues easily, unable to sustain activities |

**D. Cyclic Functions**

| | | | | | |
|---|---|---|---|---|---|
| a | 0 | 1 | 2 | 12. | Diurnal variation of mood: symptoms worse in the morning |
| a | 0 | 1 | 2 | 13. | Difficulty falling asleep: later than usual for this individual |
| a | 0 | 1 | 2 | 14. | Multiple awakening during sleep |
| a | 0 | 1 | 2 | 15. | Early morning awakening: earlier than usual for this individual |

**E. Ideational Disturbance**

| | | | | | |
|---|---|---|---|---|---|
| a | 0 | 1 | 2 | 16. | Suicidal: feels life is not worth living |
| a | 0 | 1 | 2 | 17. | Poor self-esteem: self-blame, self-depreciation, feeling of failure |
| a | 0 | 1 | 2 | 18. | Pessimism: anticipation of the worst |
| a | 0 | 1 | 2 | 19. | Mood congruent delusions: delusions of poverty, illness or loss |

**SCORE ____** Score greater than 12 is Probable Depression

Reprinted with permission from: Alexopoulos GS, Abrams RC, Young RC, Shamoin CA. Cornell Scale for Depression in Dementia. *Biol Psychiatry* 1988 Feb 1 23:3 271-84