# Nutrition and Hydration to Maintain Skin Integrity

## Purpose

The purpose of this procedure is to provide guidelines for the assessment of resident nutritional needs, to aid in the development of an individualized care plan for nutritional interventions, and to help support the integrity of the skin through nutrition and hydration.

## Preparation

1. Review the resident’s care plan to assess for any special needs of the resident.
2. Assemble the equipment and supplies as needed.

## General Guidelines

1. When apparently well-nourished individuals develop inadequate dietary intake of protein or calories, caregivers should first attempt to discover the factors compromising intake and offer support with eating.
2. If dietary intake continues to be inadequate, impractical, or impossible, nutritional support (usually tube feeding) should be used to achieve a positive nitrogen balance (approximately 30 to 35 calories/kg/day and 1.25 to 1.50 grams of protein/kg/day), according to the plan of care.
3. Ensure that interventions to prevent malnutrition are compatible with the individual’s wishes and/or advance directives.
4. Although poor nutritional status is associated with increased risk of pressure ulcer development, no specific nutritional interventions have been proven conclusively to prevent or heal pressure ulcers.
5. To support skin integrity, in particular, encourage adequate intake of protein, calories, vitamin C, and zinc:
   - **Vitamin C functions**
     - Component of amino acids used in collagen synthesis, and may improve wound healing.
     - Assists in transport of leukocytes to the wound, potentially increasing resistance to infection.
   - **Zinc functions**
     - Cofactor of hundreds of enzymes, including those used in collagen synthesis and cell proliferation.
     - Deficiencies are linked with delayed wound healing, weakened immune function, and decreased taste sensation.
6. Ensure that the resident’s intake of fluid is sufficient. “Sufficient fluid” means the amount of fluid needed to prevent dehydration and maintain health.

## Assessment

### Nutritional Assessment

1. Assess residents upon admission to establish a nutritional history and baseline information; and then every 3 months and whenever there is a change in the resident’s condition.
2. Perform an abbreviated nutritional assessment, as defined by the Nutrition Screening Initiative, at least every 3 months for individuals at risk for malnutrition. These include individuals who are unable to take food by mouth or who experience involuntary change in weight.
3. Nutritional assessment of the resident should be performed by a dietitian.

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Assessment (continued)

4. Components of the assessment should include:
   a. Intake of calories, protein, vitamins C and D, iron, and zinc.
   b. The percentage of intake at meals.
   c. The number of mls of fluid at meals.
   d. Baseline weight and percentage of increases and decreases.
   e. Laboratory finding(s) that reflect or impact nutritional status.
   f. Factors impacting nutritional intake and hydration including medical conditions such as diabetes mellitus, renal disease, multisystem failure, end-stage/end of life conditions, and congestive heart failure; dental status; ability to chew, swallow, feed self; appetite, eating habits and preferences, dietary restrictions, supplements and the use of appliances/adaptive devices.
   g. Identification of risk factors impacting nutritional status including diseases, pressure ulcers, etc.

Hydration Assessment

1. A general guideline for determining baseline daily fluids needs is to multiply the resident’s body weight in kg times 30ml (2.2 lbs = 1kg), except for residents with clinical conditions that necessitate fluid restriction (e.g., renal or cardiac distress).
2. The specific amount of hydration needed is specific for each resident, and fluctuates as the resident’s condition fluctuates (e.g., increase fluids if resident has fever or diarrhea).
3. Risk factors for dehydration include:
   a. Coma/decreased sensorium;
   b. Fluid loss and increased fluid needs (e.g., diarrhea, fever, uncontrolled diabetes);
   c. Fluid restriction secondary to renal dialysis;
   d. Functional impairments that make it difficult to drink, reach fluids, or communicate fluid needs (e.g., aphasia);
   e. Dementia in which resident forgets to drink or forgets how to drink; and/or
   f. Refusal of fluids.

Assessments will be conducted on admit, quarterly and with any change in condition.

Interventions/Care Strategies

1. Give vitamin and mineral supplements if deficiencies are confirmed or suspected.
2. Interventions may include, but are not limited to:
   a. Small frequent meals;
   b. Provision of foods high in needed nutrients;
   c. Supplementation with or between meals:
      • Protein e.g., promod;
      • Vitamin/minerals, especially multivitamin, vitamin C and zinc;
   d. Tube feeding; and/or
   e. Total parenteral nutrition.

Equipment and Supplies

The following equipment and supplies will be necessary when providing nutrition.

1. Nutritional screening/assessment tools;
2. Adaptive feeding devices in accordance with assessed needs and the plan of care; and
3. Personal protective equipment (e.g., gowns, gloves, mask, etc., as needed).

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**Steps in the Procedure**

1. Explain and ask resident’s permission to conduct a nutritional assessment/reassessment.
2. Complete a nutritional assessment using nutrition screening/assessment tools, interview, observation and record review.
3. Review supportive ancillary documentation that impacts the nutritional assessment, including, but not limited to, the food and fluid consumption record (Appetite Sheet), weight and height records, laboratory results, and nursing notes.
4. Implement nutritional support and interventions according to the plan of care.

**Documentation**

The following information should be recorded in the resident’s medical record:

1. The results of the nutritional assessment.
2. The name and title of the assessing dietitian.
3. Dietary progress notes indicating progress and status related to care plan goals, and effectiveness of recommended interventions.
4. Food consumption.
5. Changes in the resident’s nutritional status.
6. Problems or complaints reported by the resident related to nutrition.
7. If the resident refused nutrition, the reason(s) and explanation of risk, benefits and alternatives.
8. Observations of any unusual behaviors or symptoms exhibited by the resident.
9. Care plan interventions that address both nutritional deficits and risk factors.
10. The signature and title of the person recording the data.

**Reporting**

1. Notify the supervisor if the resident refuses the procedure or interventions.
2. If the resident is refusing care, an evaluation of the basis for refusal, and the identification and evaluation of potential alternatives is indicated.
3. Report other information in accordance with facility policy and professional standards of practice.

**References**

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