

Nutrition and Hydration Management

Guideline: Individualized programs to promote adequate nutrition and hydration should be developed and implemented for everyone.

DEFINITIONS:

Hydration management: The promotion of adequate fluid balance that prevents complications resulting from abnormal or undesired fluid levels.

Individual's record: A permanent legal document that provides a comprehensive account of information about the individual's health care status.

Nursing notes: The section of the individual's record where nurses document their findings and report progress toward health-related goals.

Nursing staff: Registered nurses and licensed practical nurses.

Nutrition management: The promotion of optimal nutritional status by attaining and/or maintaining a healthy body weight, reducing risk of chronic disease, maintaining skin integrity, and promoting overall good health.

Primary care providers: Physicians, nurse practitioners, and physician assistants who provide primary care services and are authorized to prescribe medications and treatments for people on their assigned caseloads.

RATIONALE:

1. People with intellectual and related disabilities may be at significant risk for dehydration and malnutrition.
2. People with intellectual and related disabilities may have frequent difficulty consuming amounts of food and liquid that are appropriate for their needs.
3. People with intellectual and related disabilities may lack the ability to communicate hunger, thirst, and discomfort in a manner that is meaningful to their caregivers.
4. Preventive health measures, close observation for signs and symptoms of dehydration and overhydration, appropriate documentation, communication of findings, and appropriate interventions are essential in maintaining the health status of people at risk.

EXPECTED OUTCOMES:

Assessment

Nutrition and hydration status should be assessed at time of admission, as part of the annual comprehensive physical assessment, and as deemed appropriate when acute situations occur. The assessment will include the following:

1. Basic physiological measures
 - a. Vital Signs (temperature, pulse, respirations, and blood pressure)
 - b. Weight (document scale used and clothing individual wears)
 - c. Height
 - d. Mucous membrane and skin turgor assessment
 - e. Body mass index (BMI) – A BMI calculator is available from the Centers for Disease Control and Prevention.¹
 - f. Determination of the level of consciousness

Assessment cont'd

2. Nutritional and hydration status including
 - a. Urine color
 - b. Usual pattern of food and fluid intake and output
 - c. Dining considerations (e.g., level of self-feeding skills, dietary preferences, allergies, food intolerances, consistency needs of food and fluids, and adaptive dining equipment needs)
 - d. Manner of food and fluid consumption (e.g., independent eater, tube feedings)
 - e. Methods of communicating hunger and thirst.
3. Medical history
 - a. Diagnosis
 - b. Current medical condition
 - c. History of dehydration or overhydration and /or nutritional deficiencies
4. Current medications

Diagnostic Reasoning

Based on assessment data, a risk appraisal for nutritional and hydration problems should be completed.

Risk Factors that may negatively impact hydration and nutritional status:

1. Acute situations:
 - a. vomiting
 - b. diarrhea
 - c. chronic constipation
 - d. febrile episodes (deviation from baseline temperature)
 - e. repeated episodes of anorexia
2. People with the following diagnoses or conditions (not inclusive):
 - a. Alzheimer's or other dementia
 - b. major psychiatric disorders (e.g., depression)
 - c. stroke
 - d. urinary incontinence
 - e. repeated infections
 - f. diabetes and other endocrine disorders
 - g. malnutrition
 - h. cerebral palsy
 - i. dysphagia – with or without thickened liquids
 - j. history of dehydration
 - k. reflux/ hiatal hernia
 - l. fluid loss from weeping wounds, burns, excessive sweating, and drooling
 - m. chronic fluid drainage from gastrostomy or jejunostomy sites, or
 - n. four or more chronic conditions
3. People receiving the medications that affect absorption, distribution, metabolism and/or excretion
4. Functional status

Risk for overhydration (The more indicators, the greater the likelihood of **overhydration**.)

1. People with a diagnosis of:
 - a. congestive heart failure
 - b. renal disease
 - c. major psychiatric disorders (schizophrenia and bipolar disorder where polydipsia [excessive thirst] is a prominent feature)
 - d. uncontrolled diabetes
2. People receiving medications that have potential to alter fluid intake and/or retention

Planning

Nutritional and Hydration Management Plan

1. Each person should have an individualized goal for daily food and fluid intake determined by a documented standard for daily fluid intake.² One example can be found at <http://www.nutrition411.com/content/sample-meal-plan-and-carbohydrate-counting-0> .
2. For persons receiving enteral feeding alone, diets should meet caloric, protein, vitamin/mineral, and free water needs. Weights and laboratory work should be used to monitor status.
3. Nutritional and hydration needs should be determined by the dietician based on industry standards.
4. If there is a risk for dehydration, fluids should be provided according to a planned, consistent schedule throughout the day.
 - a. Fluids should be provided at the appropriate consistency, as ordered by the primary care provider.
 - b. A variety of fluids with consideration for caloric needs should be offered throughout the day and not just at mealtimes.
5. During times of illness, intake should be monitored on an ongoing basis.
6. Oral intake may need to be adjusted during illness and in response to diagnostic testing.
7. An intervention plan should be developed and implemented to address under/overhydration.

Evaluation

Monitoring Intake

The facility should accurately monitor the dietary intake of each person to assure proper nutrition.

1. The dietary intake of all individuals should be monitored daily to assure proper nourishment and to identify those with nutritional management needs.
 - a. Residential staff will document the percentage of meal intake and amount of liquid consumed at each meal.
 - b. The unit nurse on first and second shifts will check the fluid and food intake record after each meal.
 - c. The nurse will alert following shifts of poor intake to ensure proper monitoring and follow-up.
 - d. If the nurse orders extra fluid or nutritional supplement to be given to a consumer due to poor dietary/fluid intake, the nurse will document the amount of fluid/nutritional supplement accepted (or given per gastrointestinal tube) on the daily intake record.

Monitoring Intake cont'd

2. If an individual drinks less than 8 ounces or eats less than 50% of their meal for three (3) consecutive meals (unless otherwise ordered), the nurse will:
 - a. Assess the individual for other signs and symptoms of illness including dehydration, changes in urinary output, and fecal impaction.
 - b. Document findings of the assessment, including vital signs, in the nursing notes.
 - c. Inform the primary care provider immediately whenever signs and symptoms of illness are present and/or the individual refuses all fluid/food intake for three (3) consecutive meals.
3. The Health Care Coordinator (HCC) should check the food and fluid records at least weekly to ensure problems are being adequately addressed.

Monitoring Weight

1. Weights should be taken and documented for all new admissions, readmissions from acute care facilities, and when an individual transfers between living units.
2. Weights should be monitored on a monthly basis or more frequently as indicated.
3. Weights should be taken in a consistent manner. The person should be weighed in similar weight clothing, at approximately the same time of day, on the same scale, and (if applicable) in the same wheelchair each time a weight is taken.
4. Wheelchairs should be weighed regularly and after any modifications are made, according to facility policy. All items that can be removed from the chair should be removed. Any items not removed should be noted.
5. Weight records should be maintained in the individual's record.
6. Each facility should have a system for monitoring weight. Methods for monitoring weight include:
 - a. **Weight change method:** If there is a five pound gain or loss from the previous month's weight, the person should be reweighed the next day to ensure the new reading is accurate.
 - b. **Percentage of weight change method:** If there is a five percent (5%) gain or loss from the previous month's weight, the person should be reweighed the next day to ensure the new reading is accurate.
7. If an **unplanned** weight variation is confirmed, the nurse, dietician, Service Coordinator/QIDP, and/or primary care provider will review the need for intervention.
8. If necessary, the Service Coordinator/QIDP should schedule a Called Team Meeting.
9. Gradual weight variations and trends should be monitored by the dietician and nurse. Referrals should be made as needed. Any significant variations in weight should be noted in the dietary and nursing notes along with follow-up provided.

GENERAL GUIDELINES

1. Each person should be encouraged to consume adequate amounts of a variety of food and fluid every day. This includes all liquids as well as foods that are liquid at body temperature (e.g., ice cream, soup, gelatin, thickened liquids) that are taken by mouth and liquids administered through tube feedings.
2. Extra fluids should be given in hot weather.
3. Water should be available at all locations where people reside, work, or participate in recreational activities.

General Guidelines cont'd

4. New admissions and readmissions from acute care facilities should be weighed weekly for the first 4 weeks to establish a baseline. This includes admissions from other institutions, from the community, or from other residential units. Based on history or clinical findings, the nurse, dietitian, or primary care provider may determine that a person needs to be weighed more frequently.
5. All weights should be documented in the individual's record.
6. Any clinical symptoms of dehydration and/or overhydration should be reported immediately by direct care staff to nursing staff.
 - a. Direct care staff should receive training to recognize the signs and symptoms of dehydration and over-hydration (See Table 1 on page 6).
 - b. The primary care provider should assess the person's over-all health status and determine the medical plan of care.
 - c. If weight fluctuates by five pounds or more within any month, the individual's weight should be rechecked for accuracy and the procedures for monitoring weight initiated, if indicated.
7. People who have been dehydrated or overhydrated should be monitored on a regular basis by nursing and primary care provider for overhydration/under-hydration until body water balance is restored and maintained.
8. Thirst isn't always a reliable gauge of the body's need for water, especially in children and older adults. A better indicator is the color of your urine. Clear or light-colored urine means you're well hydrated, whereas a dark yellow or amber color usually signals dehydration.³

Table 1. Degree of Hydration^{3,4,5}

Degree of Dehydration	Symptoms
Mild to Moderate	<ul style="list-style-type: none"> • Dry, sticky mouth • Sleepiness or tiredness — children are likely to be less active than usual • Thirst • Decreased urine output • No wet diapers for three hours for infants • Few or no tears when crying • Dry skin • Headache • Constipation • Dizziness or lightheadedness
Severe – Medical emergency	<ul style="list-style-type: none"> • Extreme thirst • Extreme fussiness or sleepiness in infants and children; irritability and confusion in adults • Very dry mouth, skin and mucous membranes • Little or no urination — any urine that is produced will be darker than normal • Sunken eyes • Shriveled and dry skin that lacks elasticity and doesn't "bounce back" when pinched into a fold • In infants, sunken fontanel — the soft spots on the top of a baby's head • Low blood pressure • Rapid heartbeat • Rapid breathing • No tears when crying • Fever • In the most serious cases, delirium or unconsciousness
Overhydration	
Caused by excessive water intake or the body retaining too much water	<p>Early overhydration:</p> <ul style="list-style-type: none"> • Nausea and vomiting • Headache • Changes in mental state (confusion or disorientation) <p>If untreated, hyponatremia (dangerously low sodium levels in the blood) may develop:</p> <ul style="list-style-type: none"> • Muscle weakness, spasms, or cramps • Seizures • Unconsciousness • Coma

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