

WATER & FINELY CRUSHED ICE CHIP PROTOCOL

I. Description

Water and/or finely crushed ice chips may be allowed for persons who have dysphagia and who are also known to aspirate as a hydration adjunct to be used at the discretion of the Speech-Language Pathologist with physician approval. The rationale for this is 3 fold as follows:

- A. Treated water is free of bacteria (e.g. gram negative bacteria), as well as other contaminants. Since it is free of harmful microbes, it does not give rise to infection in and of itself.
- B. Water has a neutral pH. Therefore, since it is neither an acid nor a base, it is not a caustic substance that will damage the lower airway system. Aspiration of acids and bases can provoke an adverse pulmonary response in which plasma is forced into the alveoli creating a fluid barrier which in turn reduces the ability of the body to take on oxygen and remove carbon dioxide.
- C. Fresh water (no salt) is absorbed through the capillary-alveolar membrane into the blood stream via specialized cells called the aquaporins which were discovered by Dr. Peter Agre in 2003 for which he won the Nobel Prize in chemistry.

II. Purpose

- A. To encourage a safe supplemental means of hydration for persons who have dysphagia and who are known to aspirate as these patients are noted to be at risk for dehydration when/if they avoid drinking their thickened liquids due to dislike of taste, texture, etc.
- B. To facilitate maintenance of the patient's current level of ability for oropharyngeal secretion management for the prevention of oral disease.
- C. To facilitate maintenance of a level of swallowing and airway safety during the task of oral hygiene.
- D. To improve quality of life.
- E. To prevent xerostoma.

Water & Finely Crushed Ice Chip Protocol Continued:

III. Indications

May be indicated for some patients receiving thickened liquids or receiving hydration nourishment, and/or medication via non-oral methods based upon the findings from the clinical bedside exam and/or an instrumental assessment.

IV. Contraindications

May be contraindicated if a given patient exhibits extreme coughing or discomfort with oral intake of water.

V. Precautions

- A. Must have a physician's order.
- B. Caregiver(s) should be trained in patient specific needs.
- C. Consult nursing staff and dietician to ensure carryover of appropriate fluid restrictions.

VI. Equipment

Any equipment should be tailored to patient specific needs.

VII. Procedures

- A. The Speech-Language Pathologist should assess the patient's needs for compensatory strategies, adaptive equipment, swallowing maneuvers, etc. to be used as a part of the water/ice chip protocol. Consider the use of instrumental assessment as appropriate.
- B. Obtain a physician's order per facility policy and/or protocol.
 - 1. For example, the diet order may read "Mechanical soft consistency foods and nectar consistency liquids".
 - 2. Then a second order may read "Patient may have thin consistency water as clinically tolerated (Meaning when afebrile, free of

Water & Finely Crushed Ice Chip Protocol Continued:

congestion, and in conjunction with assertive oral hygiene) between meals, snacks, and medications.”

- C. Train relevant caregivers with documentation to reflect training.
- D. Inform the facility care plan team.
- E. Re-evaluate patient if there is a change in medical status.

VIII. Functional Maintenance Program

- A. Reflect the purpose for the protocol via the functional maintenance program.
- B. Reflect that training was provided to family/staff/caregiver.

Bibliography:

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- Bronson-Lowe, C. (2008). Effects of a free water protocol for patients with dysphagia (Abstract, Annual Meeting of the Dysphagia Research Society). *Dysphagia*, 23, 430.
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Water & Finely Crushed Ice Chip Protocol Continued:

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