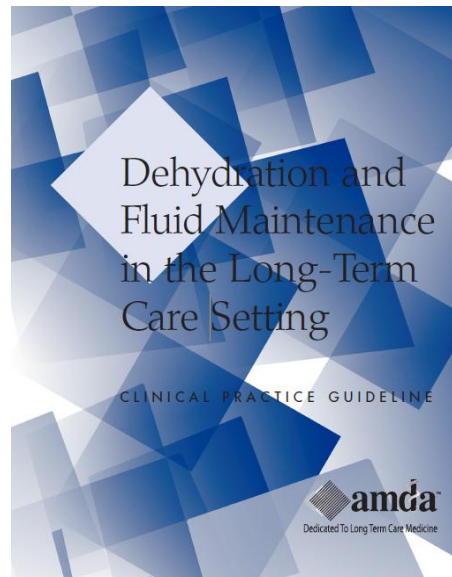


AMDA Dehydration and Fluid Maintenance in the Long-Term Care Setting Clinical Practice Guideline



Continuing Professional Education Program *Self-Study Course for Registered Dietitian Nutritionists, Nutrition and Dietetics Technicians, Registered, and Certified Dietary Managers*

Written by Liz Friedrich, MPH, RD, CSG, LDN, FAND
Edited by Becky Dorner, RDN, LD, FAND



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**AMDA Dehydration and Fluid Maintenance in the Long-Term Care Setting Clinical Practice
Guideline: CPE Program for RDNs, NDTRs, and CDMs**

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Acknowledgements

Continuing Professional Education Program Self-Study Course

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Accreditation Information

Becky Dorner & Associates is a Continuing Professional Education (CPE) Accredited Provider (NU004) with the Commission on Dietetic Registration (CDR).

We maintain records of course completions for a period of 7 years.

Registered Dietitian Nutritionists (RDN), Registered Dietitians (RD), Dietetic Technicians, Registered (DTR); Nutrition and Dietetic Technicians Registered (NDTR): After successfully completing the self-testing portion of this continuing education package, a certificate of completion is provided for your portfolio. Place the certificate in your portfolio for your records. It is the individual's responsibility to update personal CDR portfolio records, keep all documentation including program description/syllabus, and certificates of completion in case of an audit to prove that every CPE program submitted is valid, appropriate or worthy of CPE for an RDN and/or NDTR.

Certified Dietary Managers (CDMs): CDMs may complete a program and self-report it in their Certifying Board for Dietary Managers (CBDM) record. It is the individual's responsibility to keep all documentation including proof of attendance, program description/syllabus, and certificates of completion in case of an audit to prove that every CE program submitted is valid, appropriate or worthy of CE for a CDM.

Course Expiration Date: 10-3-20

Continuing Professional Education Hours: 1

This course and test must be completed prior to this date. You will receive your certificate upon successful completion of the online test (see *Instructions for Obtaining Continuing Professional Education Certificate* on the following pages).

Dehydration and Fluid Maintenance in the Long-Term Care Setting Clinical Practice Guideline

by The American Medical Directors Association, 2009.

You should have received the copy of this material. It is your responsibility to review the material thoroughly prior to taking the continuing professional education self-assessment test.

Course Description

Dehydration refers to a complex condition that results in a loss of total body water, with or without salt, at a rate greater than the body can replace it. No universally-accepted definition of dehydration exists, resulting in confusion about the identification of and diagnosis of dehydration in the long term care setting. Dehydration can have severe consequences for the long-term care resident.

The AMDA Dehydration and Fluid Maintenance in the Long-Term Care Setting Clinical Practice Guideline provides guidance on the prevention of, recognition of, assessment of, and treatment of dehydration for clinicians in long-term care settings.

Objectives

Upon completion of this program participants will:

1. State at least 3 strategies to help prevent dehydration of patients in long-term care
2. Identify at least 3 risk factors for dehydration
3. Understand the strengths and limitations of using laboratory tests to assess for dehydration.

CDR Learning Level: II

Learning Need Codes and Practice Competencies

2070 Macronutrients: carbohydrate, fat, protein, fiber, water

8.1 Interprets and applies current food and nutrition science and principles in dietetics practice

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8.1.3 Integrates knowledge of macronutrients and micronutrients for absorption, digestion and metabolism throughout the life span in practice.

8.1.4 Demonstrates knowledge of nutrient requirements throughout the life span and their role in health promotion and disease management.

10.2 Implements the Nutrition Care Process to ensure individual health goals are established, monitored and achieved while adhering to the Standards of Practice in Nutrition Care for RDNs

10.2.4 Integrates foundational dietetics knowledge with critical appraisal of assessment data to diagnose nutrition problems (using problem solving, etiology, signs and symptoms [PES] statements), which can be resolved or improved through treatment or nutrition intervention.

10.2.7 Prioritizes specific nutrition problem(s). 10.2.8 Establishes the plan of care, directly addressing the nutrition diagnosis in collaboration with the patient in defining the time, frequency and duration of the intervention.

10.4 Applies knowledge of the interrelationship and impact of pharmacotherapy, dietary supplements, functional foods and nutrients on health and disease in accordance with Scope of Practice and Standards of Professional Performance for RDNs.

10.4.4 Makes recommendations for the appropriate use of vitamin and mineral supplementation in the management of health and disease.

3040 Food Consumption; fluid balance

8.1 Interprets and applies current food and nutrition science and principles in dietetics practice

8.1.3 Integrates knowledge of macronutrients and micronutrients for absorption, digestion and metabolism throughout the life span in practice.

8.1.4 Demonstrates knowledge of nutrient requirements throughout the life span and their role in health promotion and disease management.

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10.2.4 Integrates foundational dietetics knowledge with critical appraisal of assessment data to diagnose nutrition problems (using problem solving, etiology, signs and symptoms [PES] statements), which can be resolved or improved through treatment or nutrition intervention.

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10.4 Applies knowledge of the interrelationship and impact of pharmacotherapy, dietary supplements, functional foods and nutrients on health and disease in accordance with Scope of Practice and Standards of Professional Performance for RDNs.

10.4.4 Makes recommendations for the appropriate use of vitamin and mineral supplementation in the management of health and disease.

5040 Long-term, intermediate, assisted living

8.1 Interprets and applies current food and nutrition science and principles in dietetics practice

8.1.3 Integrates knowledge of macronutrients and micronutrients for absorption, digestion and metabolism throughout the life span in practice.

8.1.4 Demonstrates knowledge of nutrient requirements throughout the life span and their role in health promotion and disease management.

10.2 Implements the Nutrition Care Process to ensure individual health goals are established, monitored and achieved while adhering to the Standards of Practice in Nutrition Care for RDNs

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10.4 Applies knowledge of the interrelationship and impact of pharmacotherapy, dietary supplements, functional foods and nutrients on health and disease in accordance with Scope of Practice and Standards of Professional Performance for RDNs.

10.4.4 Makes recommendations for the appropriate use of vitamin and mineral supplementation in the management of health and disease.

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5100 Elderly

8.1 Interprets and applies current food and nutrition science and principles in dietetics practice

8.1.3 Integrates knowledge of macronutrients and micronutrients for absorption, digestion and metabolism throughout the life span in practice.

8.1.4 Demonstrates knowledge of nutrient requirements throughout the life span and their role in health promotion and disease management.

10.2 Implements the Nutrition Care Process to ensure individual health goals are established, monitored and achieved while adhering to the Standards of Practice in Nutrition Care for RDNs

10.2.4 Integrates foundational dietetics knowledge with critical appraisal of assessment data to diagnose nutrition problems (using problem solving, etiology, signs and symptoms [PES] statements), which can be resolved or improved through treatment or nutrition intervention.

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10.4 Applies knowledge of the interrelationship and impact of pharmacotherapy, dietary supplements, functional foods and nutrients on health and disease in accordance with Scope of Practice and Standards of Professional Performance for RDNs.

10.4.4 Makes recommendations for the appropriate use of vitamin and mineral supplementation in the management of health and disease.

Other Learning Need Codes that Might Apply:

2100 Nutritional Biochemistry

3060 Laboratory tests

4190 Elderly nutrition

5430 End of life care

Additional Learning Needs Codes and Performance Indicators/Practice Competencies may also apply.

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**Instructions for Obtaining Continuing
Professional Education (CPE) Certificate**

Each participant must review the material provided, take and pass an online test (a grade of 70% is required), and complete a simple evaluation.

To obtain your CPE certificate for this course, please follow these instructions:

1. Review the course description, objectives, CDR Learning Needs Codes and Practice Competencies/Performance Indicators.
2. Carefully review the contents of this program. Keep in mind the practical applications it has for you in your individual setting. The focus is to increase your knowledge and application of the subject matter.
 - a. Click on “Test and CEU Certificate”, and fill in your name, facility name, and state.
 - b. Take the test. For multiple choice questions select the one best answer from the choices given. A passing grade of 70% or more is required. You may re-take the test as many times as needed. If you are interrupted and cannot finish the test, you can save the test and come back later to finish it.

Note: The test questions are also included at the end of this document if you would like to review them in advance of taking the test online.

3. Upon successfully completing the test, you will automatically be directed to the evaluation.
 - a. Simply enter your email address and complete the evaluation.
 - b. When finished, click “Submit Survey.”
4. Click on either “print” or “download your certificate” to generate the CPE Certificate with all of the course information including your name.
5. Remember to input the information on this course into your CDR (or CBDM) portfolio.

Continuing Professional Education Self-Assessment Test

Mr. Barber, age 87, is a long-term resident of a skilled nursing facility. He has a diagnosis of end-stage dementia, type 2 diabetes mellitus, and atrial fibrillation. He was recently diagnosed with a urinary tract infection (UTI). He is unable to ambulate independently and spends much of his day in bed. Mr. Barber is assisted to the dining room (in his wheelchair) for meals and usually feeds himself. His diet is regular with thin liquids. He usually eats well but his intake has declined in the past few days. His current height is 67 inches and he weighs 144 pounds. His weight has been stable for several months.

Mr. Barber's medications include Coumadin, Metformin, Namenda, Senna, and Cipro.

1. Mr. Barber has which of the following risk factors for dehydration?
 - a. Diuretic use
 - b. Dysphagia
 - c. Decreased cognitive function
 - d. Modified fluid consistency
2. Mr. Barber was seen by the facility nurse practitioner because of his UTI and the staff's concerns that his requests for assistance with toileting had decreased. The nurse practitioner recommended lab tests to evaluate Mr. Barber's hydration status. Which of the following labs should be drawn?
 - a. Prealbumin
 - b. Basic metabolic panel: glucose, calcium, sodium, potassium, carbon dioxide, chloride, bicarbonate, blood urea nitrogen (BUN), and creatinine
 - c. Complete Blood Count (CBC): red blood cell indices and count, white blood cell count, hematocrit, hemoglobin, platelets, and differential blood count
 - d. Hepatic Panel: Total protein, albumin, bilirubin, alkaline phosphatase (ALP), aspartate aminotransferase (AST), alanine aminotransferase (ALT)
3. Mr. Barber's serum sodium and _____ will rise if his dehydration is related to insufficient fluid intake.
 - a. BUN
 - b. Glomerular filtration rate
 - c. Creatinine
 - d. Estimated serum osmolarity

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4. Signs of dehydration, such as _____, are not always good diagnostic criteria in older adults like Mr. Barber.
 - a. Edema
 - b. Poor skin turgor
 - c. Excessive salivation
 - d. Supine hypertension

5. Which intervention might help Mr. Barber consume more fluids?
 - a. Order medication that might increase his appetite
 - b. Provide verbal prompts and/or physical assistance with eating and drinking.
 - c. Offer fluids at meals only so he will be thirsty and drink more at meals
 - d. Offer only sugar-free fluids to avoid elevations in blood sugar