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ONLINE SATELLITE SYMPOSIUM

Nutrition Care Management Practices of Oropharyngeal Dysphagia in Nursing Home residents

Nestlé Nutrition Institute

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SATELLITE SYMPOSIUM Programme:

Nutrition Care Management Practices of Oropharyngeal Dysphagia in Nursing Home residents

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Strategies to Improve the Hydration of Residents with Dysphagia in Nursing Homes

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Dr. Renata Guedes, SLP. PhD

Introduction

CHAIRMAN BIOGRAPHY

Dr. Renata Guedes, is Speech-Language Pathologist, certified dysphagia specialist.

She obtained her Speech Language Pathology degree at "Universidade de Ciências da Saúde de Alagoas", Brazil in 2005 and further specialized in working with communication and swallowing disorders on head and neck cancer patients at A.C. Camargo Cancer Center in Brazil. She was granted a Master's degree at A.C. Camargo Cancer Center (2010) and completed her Ph.D. study on brain function through fMRI related to swallowing on glossectomy patients in collaboration with "Universidade de São Paulo" (USP).

Dr. Guedes deepened her knowledge on normal swallowing with her postdoctoral research, under Dr. Ianessa Humbert at the Swallowing Systems Core Laboratory, University of Florida.

She is currently Professor at the Department of Speech-Language Pathology at Faculdades Metropolitanas Unidas, FMU University in Sao Paulo.

She is member of the actual board of the Brazilian SLP Society (SBFa) and of the Brazilian Academy of Dysphagia (ABD); member of Dysphagia Research Society (DRS) and European Society for Swallowing Disorders (ESSD).

ABSTRACT:

The world's population is ageing. According to data from the World Population Prospects: the 2019 Revision, by 2050, one in six people in the world will be over age 65 (16%), up from one in 11 in 2019 (6%). By 2050, one in four persons living in Europe and Northern America could be aged 65 or over. In 2018, for the first time in history, persons aged 65 or above outnumbered children under five years of age globally. The number of persons aged 80 years or over is projected to triple, from 143 million in 2019 to 426 million in 2050[1].

One of the biggest concerns in this elderly population are the risk factors for developing nutritional problems and oropharyngeal dysphagia (OD)[2]. High nutritional risk, underweight and sever dependent functional status are some factors associated with dysphagia in NHR[3]. A multicentric research of 12 nursing homes in Spain found that 69.6% of NHR presented clinical signs of OD[4]. Residents with OD symptoms were more often malnourished compared to residents without OD symptoms[5]. Pneumonia, which can be correlated with dysphagia diagnosis, is a common infection among nursing home residents (NHR)[6]. Incidence of dysphagia and

pneumonia varies between studies. Hollaar and collaborators refers that nine (15%) NHR out of 59 with dysphagia were diagnosed with pneumonia[7]. When oropharyngeal dysphagia and malnutrition are underdiagnosed, they may lead to aspiration pneumonia or dehydration. Best practices approaches and interventions regarding OD management, malnutrition and dehydration are necessary in this population[8].

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Dr. María Ballesteros-Pomar.
MD, PhD

Texture-Modified Diet for Improving the Management of Oropharyngeal Dysphagia in Nursing Home Residents: An Expert Review

SPEAKER BIOGRAPHY

Dr. María Ballesteros-Pomar is the coordinator of the steering committee of the Area of Nutrition in the Spanish Society of Endocrinology and Nutrition (SEEN) from 2016. She is also a member of the Steering Committee of the Foundation of the Spanish Society of Endocrinology and Nutrition (FSEEN) and in the Steering Committee of the Society of Endocrinology and Nutrition of Castilla y León (SCLEDYN). She is a member of the European Society of Clinical Nutrition and Metabolism (ESPEN) and member of the ESPEN faculty from 2010.

She obtained her medical degree in the Autonomous University of Madrid, Spain and completed her residency program in Endocrinology and Nutrition in Madrid in Hospital Clínico San Carlos, Madrid,Spain, and University Hospital in Western Ontario, Canada, and then she went back to her hometown, León, where she works as a clinical endocrinologist in the Complejo Asistencial Universitario de León and HM San Francisco Hospital, León, Spain.

From 2013, Dr. Ballesteros-Pomar is the Head of the Clinical Nutrition and Dietetics Unit in the Complejo Asistencial Universitario de León. Her unit has implemented and maintains a Quality Management System which fulfills the requirements of standard ISO 9001:2015. Dr. Ballesteros-Pomar is currently the Director of the Endocrinology and Nutrition Residency Program in Complejo Asistencial Universitario de León, León, Spain, from 2005.

She also has a Bachelor´s degree in Design and biostatistics for Health Sciences, from the University Autonoma of Barcelona and gained her Ph D in the University Complutense de Madrid. Her research interests involve disease related malnutrition, sarcopenia, dysphagia and obesity. She has received 10 research grants in these fields.

Dr. Ballesteros-Pomar is an Associate Editor in "Clinical Nutrition" from 2013 and in "Endocrinología, Diabetes y Nutrición" since 2018 and also acts as a reviewer for several national and international journals. She is the author of more than 100 papers in national and international indexed journals and nearly 200 oral and poster communications at national and international meetings (https://orcid.org/0000-0002-5729-9926). She is one of the Editors of the webapp "Spanish Society of Endocrinology and Nutrition Handbook of Endocrinology and Nutrition" (www.seen.es) and editor of other 3 books, contributing as an author to many other books in the field of Endocrinology and Nutrition. She is one of the contributing authors of the ESPEN guidelines on nutritional support for polymorbid internal medicine patients, published in 2017.

ABSTRACT:
Oropharyngeal Dysphagia (OD) is highly prevalent in institutionalised older adults with estimated rates of more than 50%, as reported in a 2002 study conducted in Sweden involving patients in nursing homes (NH) and clinics across Germany, France, Spain and the UK and assessing the effect of OD on patient's QoL[1]. In the NH setting, a slightly higher prevalence has been reported in a US study[2] and a Canadian study[3], with rates of 55% and 68%, respectively.

We recently carried out an expert review about Texture-Modified Diet for Improving the Management of Oropharyngeal Dysphagia in Nursing Home Residents[4]. The aim of this paper is to present an expert-reviewed report on evidence-based optimal practice and positions on the nutritional management of OD where this evidence is available, and a collective opinion on better practices to manage OD in NH residents where empirical evidence is absent. This paper has a specific focus on the role of texture modified diets (TMDs), and on unmet needs that should be addressed in several areas of care and research concerning OD. Due to the large heterogeneity within the NH resident population, defined resident-specific care needs, including nutritional goals, are urgently required. Personalized resident-centered care planning needs to focus on the management or care of OD. Based on the authors' opinion, optimal nutritional care of the NH population should be considered a high priority, similar to wound care.

The goal for most residents should be to meet fluid, macronutrient, and micronutrient recommendations to maintain the best possible health status and contribute to the prevention of falls, fractures, functional decline, pressure ulcers, and infections. Energy requirements are in the range of 27-30 Kcal/kg/d , protein 1-1,5 g/Kg/d , fiber 25-30 g and fluids 2000-2500 ml. Micronutrients needs, especially those regarding calcium, vitamin D and B12, should also be addressed. As long-stay NH residents tend to suffer from various health conditions that can lead to or exacerbate OD, it is also important to consider the nutritional requirements specific to each condition.

We also know that there are some practice gaps between evidence-based management of OD and real-world patterns. Due to insufficient resources, inadequate staff training and a lack of collective opinion on best practices, there is often a suboptimal approach to nutrition, hydration and OD care in NHs. NH staff, professional caregivers, and home helpers should be provided with simple training in the management and detection of OD, malnutrition, and dehydration.In the absence of strong evidence for TMDs to promote safety and beneficial long-term outcomes, it is the collective opinion of the committee that TMD when managed and developed appropriately, and accepted by the consumer, can benefit the resident. Adherence to nutritionally-enhanced TMDs may have a direct effect on unintentional weight loss, dehydration, skin health, wound healing, and

quality of life of NH residents, and may additionally exhibit a positive impact on functional outcomes, such as improved mobility and independence when in combination with other interventions (e.g. mobility interventions or other forms of exercise). Our paper presents, where available, evidence-based recommendations aimed to support NH staff and multidisciplinary teams in the preparation, and execution of personalized nutritional care plans for long-stay NH residents prescribed TMDs to manage OD.

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Dr. Heather Keller,
RD. PhD, FDC FCAHS

Strategies to Improve the Hydration of Residents with Dysphagia in Nursing Homes

SPEAKER BIOGRAPHY

Dr Heather Keller RD PhD is the Schlegel Research Chair in Nutrition & Aging at the University of Waterloo.

Research programs cross the continuum of care and are focused on improving the nutritional status and food and fluid intake of older adults. Her acute care program of research is focused on improving food quality and nutrition care processes to prevent, detect and treat malnutrition. Research in residential care is focused on improving the nutritional and sensory quality of food, promoting hydration and enhancing the mealtime experience. Community based research includes nutrition care processes and improving food and fluid intake of vulnerable older adults including those living with dementia and/or frailty. Professor Keller has led several national research and knowledge translation projects and has published widely, translating research into practice with practitioner tools and resources.

https://the-ria.ca/researcher/heather-keller-phd-rd/

https://uwaterloo.ca/nutrition-and-aging-lab/

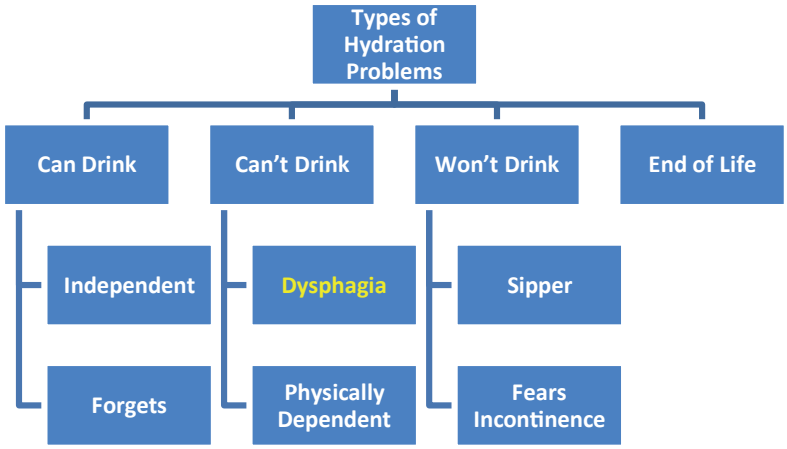
ABSTRACT:

Dysphagia is a common eating challenge for older adults living in residential care. Absolute prevalence is elusive, as various assessment methods are used. For example, clinical assessment identified 13% (Jukic Peladic et al., 2019) of all residents to have dysphagia, while 32-45% (Affoo et al., 2013) of residents with dementia have dysphagia. Instrumental assessment identifies a higher prevalence (84-93%) in persons living with dementia (Affoo et al., 2013). Regardless of this varying prevalence, dysphagia is a significant problem in older adults living in residences, and more likely to be seen in those with dementia. Other characteristics associated with dysphagia occurrence are functional impairments (Jukic Peladic et al., 2019), chewing problems (Streicher et al., 2018), poorer nutritional status (Streicher et al., 2018), and increased mortality (Jukic Peladic et al., 2019). In this setting the more severely ill or frail the resident, the more likely they are to have dysphagia.

Sequelae of dysphagia include malnutrition, dehydration and mortality. Dehydration specifically will be the focus of this presentation. Dehydration results when body water loss is greater than intake, and when this loss is >3% the individual is diagnosed with acute dehydration (Reber et al., 2018). Dehydration is diagnosed in older adults as serum osmolality >=300 mOsm/kg, or >= 150 mmol/L serum sodium or BUN: Creatinine >=20. Dehydration can result in confusion, weakness, delirium and falls. Dehydration is also one of the top five diagnoses resulting in an avoidable admission to hospital (Walsh et al., 2012).

Prevalence of dehydration in residential care is challenging to estimate, as there are variable ways of assessing this condition. A systematic review by Paulis et al. (2018) identified a range of 0.08 -38.5%. Mentes (2006) developed a typology of oral hydration and identified those with dysphagia as a unique subgroup at risk due to their inability to drink regular fluids.

Figure 1: Typology of Poor Fluid Consumption (Mentes, 2006)



Dehydration is more likely to occur in those with dysphagia due to their low fluid intake (O'Keefe, 2018; Reber et al., 2018). Mechanisms for dehydration in this subgroup include:

- Impaired ability to sense thirst
- Reduced or avoidance of swallowing liquids, based on a fear of choking
- Lack of adherence to and dissatisfaction with thickened fluids;
- Capacity for home staff to create consistent thickened fluids;
- Cost of pre-prepared thickened fluids
- Resident capacity to open containers, use spoon to consume
- Co-challenges of residents with dysphagia also having dementia and forgetting to drink, inability to drink on own and/or sipper

A variety of strategies have been instituted to promote hydration in those with dysphagia, however there is a lack of evidence to guide practice. As overly restrictive diets can lead to dehydration it is important to carefully recommend modified texture diets (Levenson & Walker 2019; O'Keefe, 2018). Thickened fluids are the most common way of managing dysphagia as thickening a fluid slows the flow rate and potentially makes it easier to control the fluid and swallow safely and decrease risk of penetration and aspiration (Leonard et al., 2014; Rofes et al., 2014;Steele et al., 2019; Vilardell et al., 2016). The relatively recent IDDSI framework provides guidance on thickness targets. Evidence indicates that thickeners do not adversely affect water absorption, so do not contribute to dehydration (Sezgin et al., 2018; Sharpe et al., 2007).Providers believe that pre-prepared thickened fluids would improve hydration, are easy to use and they are likely to use these products in the future (Keller et al., unpublished). Providers similarly suggest that staff, family, and the resident should be educated on the need for thickened fluids, that thickened fluids should be normalized in residential care, and variety enhanced to promote acceptance (Keller et al., unpublished). IDDSI Level 1 may be a texture that also promotes acceptance and many normal foods and fluids are already at this level (Howard et al., 2018). The free fluid protocol (Gillman et al., 2017), at this time is not recommended for almost all residents in residential care due to challenges in implementation (oral hygiene, lack of SLP professional assessment, and insufficiently trained staff to administer).

Lea et al. (2018) recommended several team and home based strategies to also support hydration (e.g. continuity of staff providing care; improved physical eating environment e.g. less noise, smaller dining areas; promoting a social eating environment etc.).

Regardless of management approach, it is important to remember that the quality of life for residents with dysphagia is paramount. As the risk for dehydration is high in residents with dysphagia, individualization of treatment and management to promote compliance is key (Levenson & Walker, 2019). Providers should trial various strategies to manage dysphagia and continue to re-assess swallowing capacity and acceptance of strategies to prevent dehydration in residential care.

Conclusions:

- Dysphagia is variably assessed and treated in residential care
- Dehydration is similarly poorly identified
- Both conditions are prevalent and can lead to adverse health outcomes
- Typology of fluid intake
    - Dysphagia may be only one cause of dehydration
- Various strategies specific to dysphagia
    - Thickened fluids most common and viable strategy
    - Need more research on normative thick fluids and foods
- Remember the resident when managing dysphagia
    - Swallowing safety and quality of life are primary goals

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