

**P16****Safety Protocol for Nasolaryngoscopic Evaluation of Swallowing: cultural and linguistic validation and adaption for European Portuguese language**Liliana Abreu<sup>1</sup>, Pedro S Couto<sup>2</sup>, Susana Mestre<sup>3</sup><sup>1</sup>Faculty of Medicine, Lisbon University, 1649-028 Lisbon, Portugal;<sup>2</sup>Center for Research and Development in Mathematics andApplications, Department of Mathematics, University of Aveiro, 3810-193 Aveiro, Portugal; <sup>3</sup>University Hospital Center of Algarve, 8000-386 Faro, Portugal**Correspondence:** Pedro S Couto (p.sa.couto@ua.pt)*BMC Health Services Research* 2018, **18(Suppl 2):P16****Background**

In practice, a Speech Therapist works with several neurological diseases that present changes in swallowing, especially after acute stroke. These changes, called dysphagia, can lead the patient to death by leading to malnutrition, dehydration, tracheal aspiration and recurrent pneumonia [1]. Since most of these cases are diagnosed in a hospital setting, it becomes increasingly important to create working tools that help health professionals to perform more rigorous therapeutic evaluations and interventions.

**Objective**

The present study aims to contribute to the cultural and linguistic validation and adaptation of the Protocol of Security of a Nasolaryngoscopy Evaluation of Swallowing (PSAND).

**Methods**

The study comprises two parts: a qualitative part, that corresponds to the translation and adaptation of the protocol to European Portuguese Language, and a quantitative part, where the psychometric characteristics of the protocol were studied. Further details about translation and adaptation of the protocol can be found in [2], specially the content validity procedures and its application in a pilot study. A severity assessment scale [3] was used for the functional evaluation of the swallowing safety by classifying the swallow of the subjects as normal, penetration or aspiration. For data collection, it was used the Portuguese adaptation of the PSAND and the nasolaryngoscope as evaluation tools. The content validity index (CVI) was calculated for the qualitative part, and t-student or qui-squared tests were used for comparison between severity groups.

**Results**

The sample consisted of twenty subjects, where all of them have an acute stroke as clinical diagnosis whether or not having dysphagia. The age of the inquired ranged from 31 to 85 years old, being 16 males. The results obtained by the panel of experts allowed us to conclude that all the parameters are relevant to the evaluation of swallowing and important to determinate a safe feeding for each case (CVI>0.80). Thus, by applying the PSAND, it was possible to study two groups: "Penetration" (13 patients) and "Aspiration" (5 patients). There were statistically significant differences ( $p < 0.05$ ) between the two groups for the variables: dependent or independent feeding; poor oral control; lot of residues; reduction of laryngeal sensitivity; leaking of the bolus and difficulty in cleaning pharyngeal residues.

**Conclusions**

In summary, we can say that the application of this protocol is an asset to diagnose the presence of dysphagia in any clinical diagnosis, evaluate the swallowing function, verifying the risk of penetration and aspiration and classifying the Dysphagia Severity.

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**Keywords**

Swallowing, Dysphagia, AVC, Evaluation, PSAND.

**P17****Trend in obesity in an aging society: estimate of obese elderly in Brazil in 2030**

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Population aging and the increasing longevity of older people are increasingly relevant worldwide phenomena [1]. In addition, along with ageing, a significant increase in the prevalence of obesity among the elderly is also occurring [2,3].

**Objective**

To estimate the increase in the number of obese individuals, due exclusively to population aging in Brazil from 2014 to 2030.

**Methods**

The number of obese adult Brazilians was obtained by extrapolation of the prevalence estimated by VIGITEL (Surveillance System for Risk and Protection Factors for Chronic Diseases by Telephone Inquiry) [4] in Brazilian capitals, in 2014, for the entire Brazilian population. The population projection for 2030 by age groups was obtained from IBGE (Brazilian Institute of Geography and Statistics) [5]. The prevalence obtained by VIGITEL in 2014 was applied to population projections by 2030, maintaining all other variables constant, with 95% confidence intervals (95% CI).

**Results**

The Brazilian adult population (18 +years) corresponded to 144.5 million people in 2014 of whom 15.5 million (10.7%) were 65 years of age or older. Obese adults accounted for 25.9 million (95% CI 24.9-27.0 million) of the entire adult population (17.9%), of which 3.1 million (95% CI 2.8-3.3 million) were elderly obese. The obese elderly corresponded to 11.9% of adults with obesity. In 2030, it is estimated that the Brazilian adult population will reach 175.2 million people, of whom 30.0 million (17.1%) are elderly. Obese will correspond to 31.4 million (95% CI 30.1-32.8 million) of adult Brazilians of whom 5.9 million (95% CI 5.4-6.4 million) will be obese elderly. That is, exclusively due to aging, it is expected an increase of 5.5 million obese for the entire population. An estimated 2.8 million more are obese in the age group of 65 and over. Therefore, it is expected that the percentage of 11.9% of elderly among obese adults in 2014 will rise to 18.9% in 2030.

**Conclusions**

Considering only the effect of aging with current levels of obesity prevalence, it is estimated that there will be an increase of almost 3 million obese people in Brazil by 2030. The impact of the increase in prevalence itself was not considered, which would make the prospect even more worrying due to the impact on chronic non-communicable diseases and in the use of health services.

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#### Keywords

Obesity, Aging, Tendencies, Population projection, Demography.

#### P18

### Nursing interventions towards the hospitalized elderly patient with delirium – a systematic review of literature

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#### Background

Delirium is one of the most prevalent neuropsychiatric syndromes in the hospital setting, preferably in the elderly debilitated patients. It is a cognitive alteration of sudden onset, developing in a matter of hours or days; which is interspersed with periods of lucidity and also characterized by disturbances in attention, memory and behaviour. It is also identified by the worsening of the symptoms at night and by changes in the sleep-wake cycle. The presence of this syndrome, makes impossible a holistic care, upsetting an effectively communication, between patient and nurse or family. It may even be considered common for an elderly, given the age, to appear confused, but it should not be considered normal, so investing in concrete studies to specify these mental changes and determinate what interventions are more appropriate for this vulnerable group, is emergent. It is up to nurses, who are in a privileged position, the early recognition/intervention at this neurological condition. It is assumed as an emerging need, to implement non-pharmacological strategies, so that the occurrence of delirium decreases and thus avoids great suffering.

#### Objective

This study aimed to identify the nursing interventions directed to the hospitalized elderly, for the control and prevention of delirium.

#### Methods

Using the methodology recommended by the Cochrane Centre, this systematic review of literature was guided by the following research question: "What is the scientific evidence regarding nursing interventions directed to the hospitalized adult/elderly for the control of delirium?" Using a PICO framework as reference, a review of articles published between 2012 and 2017 was carried out. The research was conducted at B-ON and EBSCO host - Research Databases.

#### Results

In this bibliographic review 5 studies were selected, in common, they present tendentially, non-pharmacological strategies adopted by nurses with preventive character towards the predisposing and precipitating factors of delirium. The role of nursing in carrying out preventive actions was important in the maintenance of the sensorial balance (frequently reorientation, encouraging the use of visual and hearing aids improves patients 'sensorium), optimizing circadian rhythm (minimizing night procedures, allowing periods of rest), assessing the local environment (limiting background noise and light) as well as in the mental status, pain, monitoring hydration, nutrition and stimulation of early mobility.

#### Conclusions

The implementation of nursing delirium preventive measures truth sensibilized professionals reveals to be effective in reducing the incidence of delirium. Research is imperative, to recognize and validate witch interventions may better control delirium and thus reduce its consequences.

#### Keywords

Delirium, Nursing interventions, Hospitalized adult patients, Evidence-based practice.

#### P19

### Distribution of gama-chamber nuclear equipment is associated to the distribution of physicians in the state of Rio Grande do Sul, Brazil

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#### Background

The use of effective technologies extends the resolution of health services. However, over-supply can create incentives for service over-use, which is not without risk to patients. Nuclear medicine equipment has been increasingly used. Knowing the associations with their spatial distribution can contribute to interventions aimed at reducing inequalities.

#### Objective

To dimension the association among mean number of equipment's of gamma-chamber, population, Gross Domestic Product and number of physicians, by health region of Rio Grande do Sul, state of southern Brazil.

#### Methods

Observational and cross-sectional descriptive study based on public data from each one of the 30 health regions for 2013, the most recent year at the time of the survey (2016-2017). Data was managed in Microsoft Excel®. Pearson's linear correlation coefficient and multiple linear regression analysis were used with Statistica 12.5® software, at a significance level of 5%. The variable considered for outcome was monthly mean of gamma camera equipment (GamaC) and the predictor variables (I) population (POP), expressed in number of inhabitants; (II) Gross Domestic Product (GDP), expressed in the national coin (Real); and (III) the number of physicians registered in the CNES - National Register of Health Establishments (MED) by health region of the State Health Secretariat, in 2013.

#### Results

The predictive variables POP, GDP and MED were each one highly correlated with GamaC (R = 0.94, 0.92 and 0.98 respectively). Simple linear regressions with each independent variable were elaborated. It was found that POP, PIB and MED significantly affected the GamaC variable (adjusted R<sup>2</sup> of 0.89, 0.84 and 0.96 respectively). In the final model, where variables were standardized and GamaC was considered to be simultaneously dependent on the predictive variables POP, GDP and MED, the POP variable lost significance (p > 0.05). The variable PIB presented a negative coefficient (-0.54, p < 0.01), while the variable MED, a positive (1.27, p < 0.01).

#### Conclusions

Health regions of the state that had the highest number of physicians, had the highest mean number of scintigraphic chambers. The growth in the supply of medical equipment such as nuclear medicine improves the population's access to services, but the greater supply in Rio Grande do Sul state was associated more with better developed health regions, when considering the number of medical professionals available, than the gross domestic product or the number of residents in the territory.

#### Keywords

Nuclear medicine, Supply, Health needs, Demand of health services.

#### P20

### Family experiences of the internalized person in situation of critical illness: integrative revision

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#### Background

The admission of a patient to a critical health unit is usually traumatic for the family, having a major impact on their life, which can