Research Article OMICS International

# Importance of Nutrition in Primary Care: Nutritional Risk and Malnutrition

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Rec date: Mar 8, 2017, Acc date: Jun 3, 2017, Pub date: Jun 10, 2017

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#### Abstract

Food habits are a determinant of the health of the population and therefore an adequate assessment by the Family Doctor would improve the patients' lives, reduce complications, hospital stays and costs to the health system.

An example of this reality is the elderly person who, either on his own initiative or through the family or caregiver, reports loss of appetite, who does not like food, walks and has lost weight. In these cases it is essential to perform a nutritional assessment, as well as the search for malnutrition in the face of a risk circumstance.

Keywords: Nutrition; Screening; Assessment; Primary care

#### Introduction

Conceptually we speak of NUTRITION as the set of processes through which the living being uses, transforms and incorporates to its structures substances that it receives through the feeding with the objective of obtaining energy, build-repair the organism and regulate the metabolic processes. It is an involuntary and un-modifiable act.

WHO defines MALNUTRITION as the imbalance between supply and nutrient and calorie needs that ensure growth, maintenance and specific functions?

Soeters et al. (Clin Nutrition 2008) define MALNUTRITION as a state in which a combination of varying degrees of malnutrition or over-nutrition related to inflammatory processes condition changes in body composition and functional alterations [1,2].

Defined, consensual and even legislated in the field of Primary Care, the reality is that professionals ask little about this problem, obviating their diagnosis and treatment; Although it is true, in our consultations are frequent the patients of advanced age that by physiological, pathological and socio-economic circumstances are exposed to malnutrition.

One of the major drawbacks to the Family Doctor is the limited time available for questioning and examining the patient.

# **Materials and Methods**

The Health Center of Guillem de Castro is located in Valencia capital, belongs to the Health Department 9 of the Conselleria de Sanitat and has an assigned population of 27,000 inhabitants.

In 2011, the Protocol of the Clinical Nutrition Program from Primary Care, interrelated with the Endocrinology Service and the Nutrition Unit of the General University Hospital, was presented to the Medical Department of the Department of Health, being the first Health Center where Launched this pilot program.

Currently a family doctor and a nurse at the health center work in this program, circumscribing at the moment only the patients belonging to it.

## **Results and Discussion**

## Objectives and phases

#### **Objectives**

Detection of patients malnourished or at risk of malnutrition in a protocolized way .. [3,4].

# Phases: [5,6]

#### Screening

Screening is the initial phase.

- · Identification and selection of patients.
- Can be performed by any healthcare professional.

## **Nutritional evaluation**

- Integral approach to define nutritional status.
- Complete evaluation, integrating all the components of the assessment and after it determine the intervention and the treatment to be applied.

# Parameters for nutritional assessment [7-9]

# Clinical and dietary history

- Personal and family history.
- 24 hour survey or diet log of a period of time (number of daily meals, liquid intake, purchase and preparation of food ...).

# Physical exploration

Signs of malnutrition (hair loss, dry skin, loss of muscle mass, irritability, absence of teeth, ...).

## **Anthropometric parameters**

- Weight, size and BMI.
- Tracking the% of involuntary weight loss in 3-6 months.

## **Biochemical parameters**

- Albumin, Cholesterol, Lymphocytes, Transferrin and Pre-Albumin.
- Nutritional Risk Indicators [10-12]
- Unintentional weight loss of 5% in one month, 7.5% in three months or 10% in six months.
- Low weight for height (<20% of PI).
- BMI<22.
- Serum albumin<3.5 mg/dl.
- Cholesterol<160 mg/dl.
- Change in functional status: from independent to dependent.
- Adequate food intake.

#### **Nutritional valuation scales**

They are tools validated for the diagnosis, allow to detect the risk and are appropriate for the population being studied [13-15].

#### Clinical methods

- NRS (Nutritional Risk Screening): ESPEN
- MUST (Universal Screening Tool): ESPEN
- MNA (Mini Nutritional Assesment)

## Automated method

CONUT (Ulibarriet to 2002)

MNA and MUST are the most used in Primary Care. The first one has greater specificity and sensitivity in the population older than 65 years and the second is validated for the general population

## Patient type for assessment

So, what can we do now? [16,17]

# Normonutrido

(Weight loss<5%):

- Dietary recommendations.
- Food habits recommendations.

#### Low-moderate mildness

(5-10% weight loss):

- Weekly weight control.
- Oral nutritional support.
- Review.

#### Serious malnutrition

Weight loss of more than 10%:

Derive specialized care.

# Conclusion

The assessment of the nutritional status of patients should be a standard practice in the consultation of the family doctor in Primary Care.

- Knowing the nutritional status can detect the risk of malnutrition or malnutrition, guide an adequate nutritional intervention and avoid the risks added by malnutrition itself.
- Anthropometry can and should be done in primary care.
- Both the MUST scale and the MNA can and should be used in Primary Care.
- The nutritional intervention must be individual, adapting the diet and if necessary the contribution of supplements to the nutritional status, concomitant pathology, functional capacity of the digestive tract, socio-familial situation and cognitive capacity.

#### Reflections

"Malnutrition is less costly to prevent than to treat, so it's PREVENTION, or at least, its early detection and timely treatment is perfectly in accord with a conception of good medical practice." "Let good food be your food the food your medicine" (Hippocrates). "Health of the whole body is forged in the office of the stomach" (Miguel Cervantes)

#### Conflict of Interests

The author declares no conflict of interest.

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Citation: Alegre AM (2017) Importance of Nutrition in Primary Care: Nutritional Risk and Malnutrition . Epidemiology (Sunnyvale) 7: 309. doi: 10.4172/2161-1165.1000309

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