

Nutriología Médica (Medical Nutrition). **Second edition**

Martha Kaufer-Horwitz,* Ana Berta Pérez Lizaur**

Abstract

The core goal of the textbook "*Nutriología Médica*" (*Medical Nutrition*) was to develop a tool that would enable nutrition education in Mexican medical schools and medicine faculties. The book was also aimed to help general medicine specialists by supplying basic nutrition knowledge, with the long-term purpose of achieving a common language among the various members of health work teams. Due to the involvement of nutrition in medical practice, it was introduced as an integrating element for medical education; not without underlying the fact that it constitutes, by itself, a body of knowledge anchored in many basic and applied disciplines, such as biochemistry, physiology, genetics, immunology, bromatology, dietetics and diet therapy. The text attempted to include facts on nutrition at different life cycle stages, as well as the clinical manifestations of altered nutritional processes, its relation with the evolution of various diseases, as well as clinical and laboratory assessment techniques, and corresponding therapeutic procedures. As to the authors, "medical-nutritionist" pairings were encouraged, in order to obtain the most of their combined knowledge and experience, from each professional perspective. The purpose of this collaboration was for specialists to recognize that joint work results in the best attention for individuals under their care. Although the textbook's main target audience was identified as Mexican medical students, followed by general medical physicians, it has been adopted as source book by nutrition students, as well as the nutritionist and dietitian community, and nurses. We also have reports of its use in several Latin American countries.

Key words: nutrition textbook, medicine, Mexico.

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Identifying a need

As was indicated in previous presentations, the Nestle Nutrition Fund's Program for Nutrition Education in Medical Schools originated from the necessity to include this subject in medical curricula at Mexican universities —since physicians did not obtain any previous nutrition training during their studies until launching this initiative. Bibliography on the subject at the early nineties was scarce, with a few basic texts such as Dr. Quintin Olascoaga's, Dr. Hector Bourges', or very specific magazine articles such as those of professors Federico Gomez, Rafael Ramos Galvan or Joaquin Cravioto, among others. Therefore, the Nestle Fund decided to put together a text book, in Spanish, by Mexican authors, which would include the necessary concepts to sustain nutrition teaching at national medical schools. The resulting book allows the student not only to obtain nutritional and dietary knowledge, but also to delve into important data on our country's nutritional status.

Goals of the textbook

The core goal of this effort was to develop a tool that would enable nutrition education in Mexican medical schools and medicine faculties. Secondly, this book was aimed at helping general medicine specialists by supplying basic nutrition knowledge, with the long-term purpose of achieving a common language among the various members of the health care team.

Due to the extent of nutrition in clinical practice, as well as the fact that nutrition constitutes a body of knowledge anchored in many basic and applied disciplines, such as biochemistry, physiology, genetics, immunology, bromatology, dietetics and diet therapy the textbook should cover a variety of goals. In addition, the text included facts on nutrition at different life cycle stages, as well as the clinical manifestations of altered nutritional processes, its relationship with the evolution of various diseases, as well as clinical and laboratory assessment techniques, and corresponding therapeutic procedures.¹

Structure of *Nutriologia Medica* (second edition)

The planning and development of *Nutriologia Medica* was based on the following core principles:²

a) Integration of basic science and clinical nutrition knowledge and methods for health promotion, disease prevention, and medical nutrition therapy.

b) Application to the reality of Mexico, in particular, and Latin American populations.

c) Preparation, reviewing and updating of contents by specialists, described and coordinated by the publishing team.

d) A friendly design and presentation.

e) An accessible retail price.

The textbook that resulted is divided in three broad sections, the last of which is contemplated as basic support material, to be consulted separately or else as a complement for the other book chapters:

a) **General and preventive aspects.** This section covers the practical aspects of normal feeding and nutrition throughout the life cycle. It also describes the Mexican which includes young people as well as an increasing older adult population. The section begins with a guide through the nutritional status in Mexico at the beginnings of the 21st century, and then deals with the different stages of life (first year of life, infancy, childhood, adolescence, adult, the adult woman –including pregnancy, lactation and climacterics– and elder citizens), as well as aspects of physical activity and dental health.

b) **Diagnostic and therapeutic aspects.** This section deals with the physiopathological and practical aspects for nutritional processing of the most important diseases, in terms of morbidity and mortality in Mexico. It includes chapters related to the so-called “poor man’s pathology” (undernourishment, diarrheas, anemia), and the “diseases of abundance”, which are increasingly frequent in developing countries (cardiovascular, gastrointestinal, hepatic, renal diseases, obesity, diabetes mellitus). This section deals with the subject of nutritional support and artificial feeding. The section ends with a chapter of great relevance, discussing the ethical aspects involved in nutritional attention.

c) **Basic aspects.** This section summarizes the foundations of nutrition. There are chapters on meals, foods and the diet, and basic aspects of calorimetry. There is a quite extensive and detailed chapter, destined to present/

display dietary plans for healthy and ill individuals, with the purpose of helping physicians in the prescription of nourishing regimes in various circumstances, and interaction with enabled, knowledgeable professionals of the nutrition field. Finally, this section offers a chapter on the assessment of nutritional status, including a series of tools and useful reference tables for the daily assessment of patients.

Chapter authors

Given the purpose of the book, the editors sought experts in each field to develop the respective chapters. Thus, the editors, brought top experts from various institutions, including physicians in different specialties, dietitians with different professional orientations, chemists, and a dental surgeon. As far as possible, “medical-nutritionist” pairings were encouraged, in order to obtain the most of their combined knowledge and experience, from each professional perspective. The purpose of this collaboration was for specialists to recognize that joint work and integral attention can result in the best attention for individuals under their care. It is interesting to note that a recent publication by Hark and Morrison³ recommends exactly this type of team work for text development on nutrition education, aimed at medical schools. The intention of making this kind of collaboration patent, is for students of different disciplines to identify the roles and limits of different health specialists, and simultaneously to acquire a common language that facilitates communications among health-care professionals. Also, the publishers of the book are nutrition and medical specialists, who defined its content and chapter sequence so that it was suitable and useful for health practitioners.

Expectations

From the first edition of *Nutriologia Medica* in 1995, the main target audience was identified as Mexican medical students, followed by general medical physicians. Nevertheless, a wider audience than originally planned was later discovered. The text has been adopted as source book by nutrition students throughout the country, nutritionists and dietitians, and nurses. We also have received reports of its use in Chile, Guatemala, Venezuela and Peru. The final print for the first edition (1995) was of 3000 copies, with two reprints of 1000 copies each. The edition obtained the CANIEM (National Bureau of the Mexican Publishing Industry) award. The second edition was introduced in

January 2001, with an initial printing of 5000 copies. The stocks of this edition have now been practically exhausted, which is why we are moving to a first reprint consisting of 5000 additional copies.

The future

Given the few Spanish-language textbooks on the subject with the characteristics and reach of this book, we considered that it could be introduced more directly into other Spanish-speaking countries or populations, with a satisfactory level of acceptance. Constant evaluation and revision are fundamental to assure the quality of the work. In fact, some of the editing that took place for the second edition were a direct result of feedback from professors and readers. The publishers are committed to thoroughly updating the book periodically, reviewing not only the suitability of the materials, but also their content and concepts. New materials, or even complete chapters, may be eliminated or incorporated in light of new scientific knowledge.

Appendix. Contents and authors

GENERAL AND PREVENTIVE ASPECTS

Nutrition in Mexico in the early 21st century

Martha Kaufer Horwitz

Nutrition in the first stages of life

Leopoldo Vega Franco

Pre-school and school age nutrition

Maite Plazas

Annex: Nutrition and mortality among Mexican girls

Edgar M. Vasquez Garibay

Adolescent nutrition

Esther Casanueva, Martha Morales

Adult nutrition

Francia Pfeffer, Martha Kaufer Horwitz

Nutrition for adult women

Esther Casanueva

Nutrition for the elderly

Luis Miguel Gutierrez Robledo, Cristina Llaca Martinez

Nutrition and physical activity

Mauro Valencia, Pedro Arroyo

Nutrition and dental care

Eduardo J. Izaguirre Fernandez

DIAGNOSTIC AND THERAPEUTIC ASPECTS

Energy-protein malnutrition

Georgina Toussaint Martinez de Castro, Jose Alberto Garcia Aranda

Nutritional aspects of anemia

Martha Kaufer Horwitz, Esther Casanueva

Diarrhea-related disease and nutrition

Esther Casanueva, Carlos Eslava, Alejandro Cravioto

Adult obesity

Martha Kaufer Horwitz, Loredana Tavano Colaizzi, Hector Avila Rosas

Cardiovascular disease and nutrition

Rafael Chavez Dominguez, Ana Berta Perez Lizaur

Gastrointestinal disorders and nutrition

Santiago Gallo Reynoso, Leticia Marvan Laborde

Nutritional disorders on hepatic diseases

Adriana Sandoval, Segundo Moran, Misael Uribe

Diabetes mellitus and nutrition

Raul Ariza Andraca, Nina Nazor Robles

Renal disorders and nutrition

Irma Velez Salazar, Luis Gonzalez Michaca, Ricardo Correa Rotter

Nutritional support and artificial feeding

Alberto Pasquetti Ceccatelli

Ethical aspects of dietary attention

Luis Ize Lamache, Adoracion Benito Trejo

BASIC ASPECTS

Nutriments

Esther Casanueva, Hector Bourges Rodriguez

Annex: Molecular nutrition

Felipe Vadillo

Feeding and diet

Hector Bourges Rodriguez

Annex: Functional foods

Hector Bourges Rodriguez

Annex: Genetically modified foods

Ana Maria Calderon de la Barca

Basic aspects of calorimetry

Teresa Espinosa

Feeding plan for healthy and ill individuals

Ana Berta Perez Lizaur

Assessment of the nutritional status

Hector Avila Rosas, Elizabeth Tejero Barrera

Annex: Assessment of the nutritional status through immunology

Roxana Valdes Ramos

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REFERENCES

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3. Hark LA, Morrison G. Development of a case-based integrated nutrition curriculum for medical students. Am J Clin Nutr 2000;72(Suppl):890S-97S.